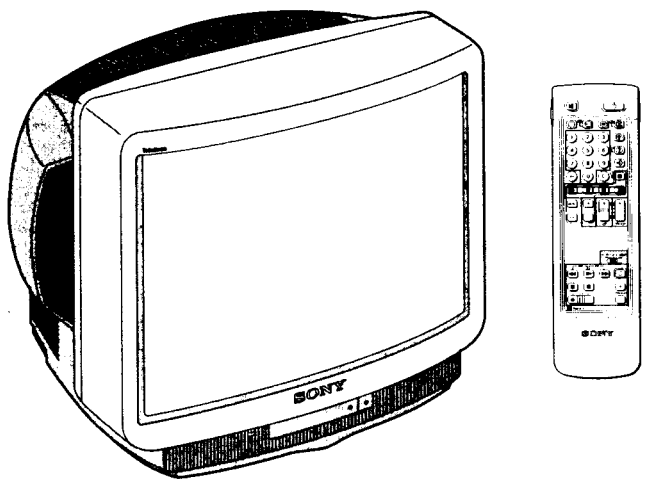
SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2901D	RM-833	AEP	SCC-G77B-A	KV-X2903E	RM-833	Spanish	SCC-G82BA-A
KV-X2901A	RM-833	Italian	SCC-G81B-A	KV-X2902L	RM-833	IRISH	SCC-G83B-A
KV-X2900B	RM-833	French	SCC-G85B-A	KV-X2902U	RM-833	UK	SCC-G87B-A
KV-X2901B	RM-833	French	SCC-G84B-A	KV-X2901K	RM-833	OIRT	SCC-G86A-A



MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Irish	I	NICAM Stereo	VHF A-C, D-J, VHF 21-69 CABLE CHANNELS S1-S20 HYPERBAND S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	AEP	Italian	French Text	French Non Text	Spanish	Irish	UK	OIRT
Power Consumption	108W	108W	108Wh	108W	108W	156W	156W	108W

SPECIFICATIONS

Picture Tube — Hi-Black Trinitron
Approx. 72 cm (29 inches)
(Approx. 68 cm picture measured diagonally)
110° -deflection

Input/Output Terminals

[REAR]

- 1 21-pin Euro connector (CENELEC standard)
  - inputs for audio and video signals
  - inputs for RGB
  - outputs of TV video and audio signals
- 2/S 2 21-pin Euro connector
  - inputs for audio and video signals
  - inputs for S video
  - outputs for audio and video signals (selectable)

[FRONT]

- 3 Video input - phono jack
- 3 Audio inputs - phono jacks
- S 3 S video input 4-pin DIN
- Ω Headphone jacks : stereo minijack

Sound output	2 x 20W (Music power)
Power requirements	220 - 240V
Dimensions	Approx. 656x566x518 mm
Weight	Approx. 45kg
Supplied accessories	RM-833 Remote Commander (1) IEC designation R6 battery (1)
Other features	NICAM , FASTEXT, TOPTEXT.

[RM-833]

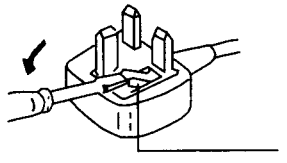
Remote control system	infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65x225x21 mm (w/h/d)
Weight	Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

Item \ Model name	KV-X2901D	KV-X2901A	KV-X2900B	KV-X2901B	KV-X2903E	KV-X2902L	KV-X2902U	KV-X2901K
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	OFF	OFF	ON
Norm I	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Norm D/K	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Teletext	ON	ON	OFF	ON	ON	ON	ON	ON
Nicam Stereo	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
Language Preset	Deutch	Italian	French	French	Spanish	English	English	OIRT

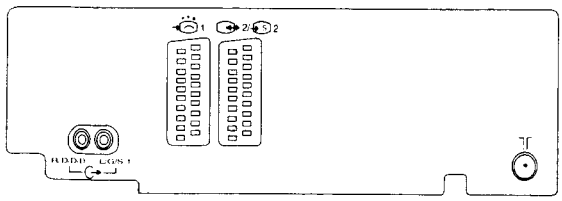
WARNING (KV-X2902L / KV-X2902U only)

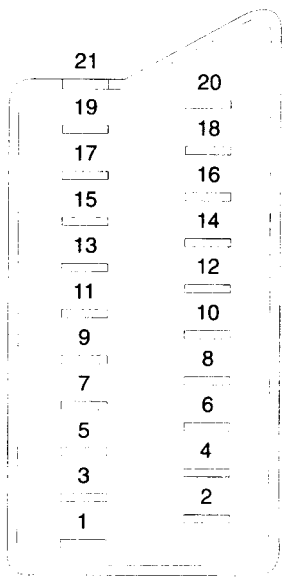
The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the ASTA mark.
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector (1 2 / 4)

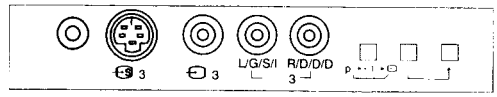




Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance :Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance :More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance :Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance :More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground(blanking)	
15	○	—	—	Red input	0.7 ± 3dB, 75 ohms, positive
	—	○	○	(S signal) croma input	0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground(video output)	
18	○	○	○	Ground(video input)	
19	○	○	○	Video output	1V ± 3dB,75ohms,positive sync:0.3V(-3+10dB)
20	○	—	—	Video input	1V ± 3dB,75ohms,positive sync:0.3V(-3+10dB)
	—	○	○	Video input Y (S signal)	1V ± 3dB,75ohms,positive sync:0.3V(-3+10dB)
21	○	○	○	Common ground (plug, sheild)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.



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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ! ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLIMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE. LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTEMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

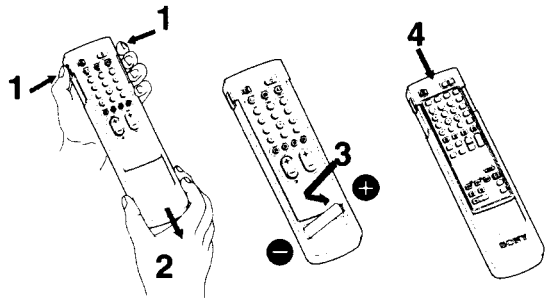
ATTENTION AUX COMPOSANTS RELATIFS Á LA SÈCURITÈ !!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ! SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

Inserting the Battery Into the Remote Commander



Remove the cover.

Check the correct polarity.

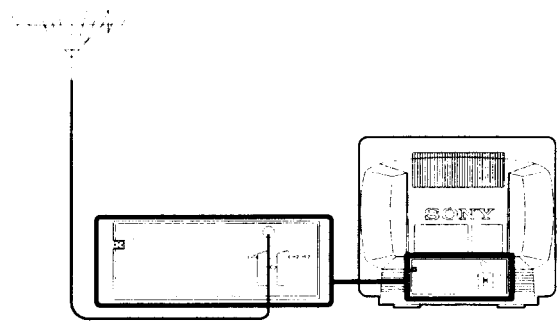
Refit the outside cover making sure that the Full Function side is visible.

About Battery Life

Under normal operation, a battery will last up to half a year.

Connecting the Aerial

Connect aerial to the ⊤ socket at the rear of the TV. (cable not supplied)



Choosing a Language

(See inside of front cover and back cover)

1 Depress ⏻ A on the TV.
The TV turns on. If the standby indicator B on the TV is lit, press ▢ 3 or any number button 4 on the Remote Commander.

2 Press MENU 7 on the Remote Commander.
The SELECT LANGUAGE screen appears.

MENU

3 Press one of the colour buttons 17 on the Remote Commander to select a language (Press the white button 17 to display other language alternatives).
The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.

SELECT LANGUAGE

- ENGLISH
- DEUTSCH
- FRANÇAIS
- ITALIANO
- MORE

SELECT COL. BUTTON

Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button 17 then press the white button 17 to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning: A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.

manual tuning: Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning;

A. On the TV: hold down ▶▶□ E on the front of the TV for 2 seconds

or

B. On the Remote Commander: as follows

1 Press MENU 7.

2 Press the white button 17.

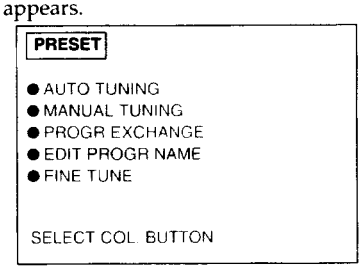
3 Hold down the red button 17 for 2 seconds,

Note: Press the green button 17 to cancel.

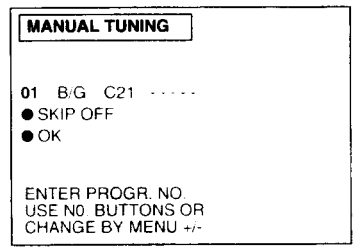
Tuning in to Channels Manually

1 **Press MENU [7].**
The MENU screen appears.

2 **Press the white button [17] to select PRESET.**
The PRESET screen appears.



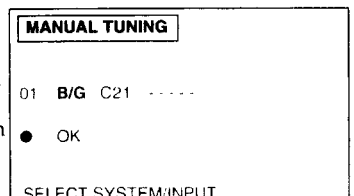
3 **Press the green button [17] to select MANUAL TUNING.**
The MANUAL TUNING screen appears.



4 **Press the number buttons [4] or MENU+/– [9] to select a programme position.**
If you use the number buttons [4], enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

5 **Press the green button [17].**

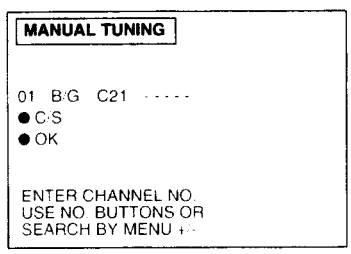
Note: Use MENU +/– [9] to select TV system. You can alternatively select input sources which may be assigned to programme positions. The display changes as follows:



B/G ⟷ D/K ⟷ AV1 ⟷ RGB ⟷ AV2 ⟷ YC2 ⟷ AV3 ⟷ YC3

6 **Press the green button [17].**

Note: If a video input source is selected in step 5, this is now stored. Refer to step 4 to tune other programme positions.



7 **When you have slected B/G, press the red button [17] to select C (regular channel) or S (cable channel).**

8 **Press the number buttons [4] or MENU+/– [9] to select the channel number.**
If you use the number buttons [4], enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

9 **Press the green button [17] to store.**

Note: If you want to preset other channels, repeat steps 4 to 9.

10 **Press MENU [7] twice to return to the normal screen.**

Note: You can skip unused programme positions when selecting programmes with the PROGR +/– buttons [18]. Press the red button [17] to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on
Depress ⏻ [A] on the TV.

Turning off temporarily
Press ⏻ [10] on the Remote Commander.
The TV enters standby mode and the standby indicator [B] on the front of the TV lights up.

Turning on again
Press ▢ [3], PROGR+/– [18], or one of the number buttons [4] on the Remote Commander.

Turning off completely
Depress ⏻ [A] on the TV.
Note: It is recommended to use ⏻ [A] to turn off the TV. This could help you save energy.

Selecting TV Programmes

Press PROGR+/– [18] or press number buttons [4].

To select a double-digit number
Press -/-- [5], then the number buttons [4].

Adjusting the Volume

Press ◿+/– [19].

Muting the Sound

Press 🔇 [1].
To resume normal sound, press 🔇 [1] again.

Displaying the On-screen Indications

Press ⓘ [14] once to display the on-screen indications.
Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:
Press ◿+/– [D] to adjust the volume.
Press P+/– [C] to select programme numbers or to turn the TV on from the standby mode.
Press ⏎ [F] to select the input source.
Press ⏭ [E] to preset channels automatically.

Advanced TV Operations

Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press;		to;
1	MENU [7]	enter the MENU screen
2	a colour button [17]	select an item you want to change (The selected item is marked by a triangle.)
3	MENU+/– [9]	change (or adjust) the contents of the item
4	MENU [7]	return to the MENU screen
5	MENU [7] again	return to the normal screen
Press MENU [7] once or twice whenever you want to return to the normal screen.		

Note: When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

1 Press MENU [7].
The MENU screen appears.

2 Press the red button [17] to select PICTURE or the green button [17] to select SOUND.

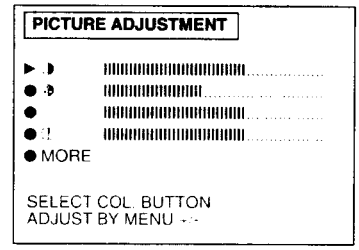
3 Press the respective colour button [17] to select an item.

4 Press MENU +/– [9] to adjust.

5 Press MENU [7] twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

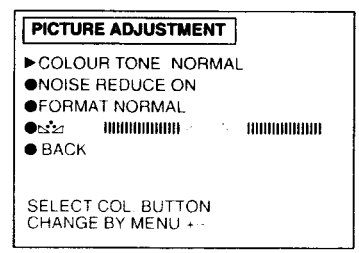
(First Page)



Press colour button	Effect
Red: For Picture ◑	Less —I— More
Green: For Colour ◕	Less —I— More
Yellow: For Brightness ○	Darker —I— Brighter
Blue: For Sharpness ◫	Softer —I— Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)

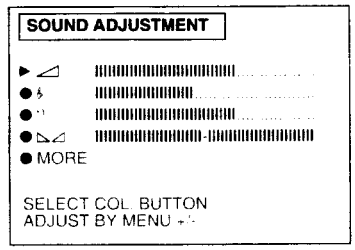


Press colour button	Effect
Red: For Colour Tone	Normal -> Warm (reddish colour tone) -> Cool (blueish colour tone)
Green: For Noise Reduce	ON: Reduces picture noise (in case of low signal level) OFF: Normal setting
Yellow: For Format	Normal: Normal setting 16:9 Wide screen effect
Blue: For Hue control (only for NTSC video signals)	Reddish —I— Greenish
White:	Back to first page of PICTURE ADJUSTMENT

Note: Press [8] on the Remote Commander to reset to the factory preset levels for picture and sound.

SOUND ADJUSTMENT

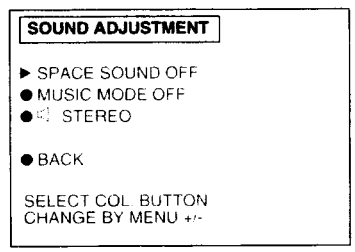
(First Page)



Press colour button	Effect
Red: For Volume	Less —|— More
Green: For Treble	Less —|— More
Yellow: For Bass	Less —|— More
Blue: For Balance	More left - more right
White:	Next page of SOUND ADJUSTMENT

SOUND ADJUSTMENT

(Second Page)



Press colour button	Effect
Red: For Space Sound	OFF: normal sound ON: for a special acoustic sound effect
Green: For Music Mode	OFF: normal sounds ON: when listening to music broadcast
Yellow: For Stereo:	Stereo -> Mono A (left channel) - > Mono B (right channel) -> Mono
White:	Back to first page of SOUND ADJUSTMENT

Note: Press ↩ 8 on the Remote Commander to reset to the factory preset levels for picture and sound.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer .

1 **Press MENU 7.**
The MENU screen appears.

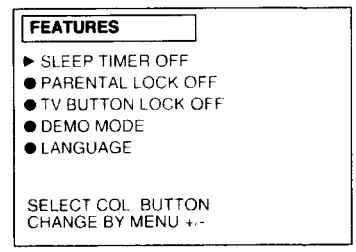
2 **Press the yellow button 17 to select FEATURES.**

3 **Press the respective colour button 17 to select an item.**

4 **Press MENU +/- 9 to change.**

5 **Press MENU 7 twice or wait until the menu displays disappear automatically to return to the normal screen.**

FEATURES



Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF -> 0:30 -> 1:00 -> 1:30 -> 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.

Advanced Presetting Functions

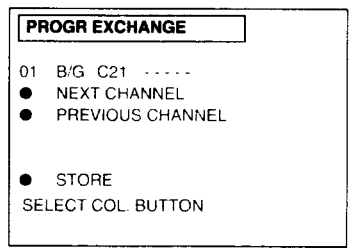
Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24)).

1 **Press MENU [7].**
The MENU screen appears.

2 **Press the white button [17].**
The PRESET screen appears.

3 **Press the yellow button [17].**
The PROGR EXCHANGE screen appears.



4 **Press the white button [17] repeatedly until the desired programme number (09) appears.**

5 **Press the red or the green button [17] repeatedly until the desired channel number (C24) appears.**

6 **Press the white button [17] to store.**
Now the exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

7 **Press MENU [7] twice to return to the normal screen.**

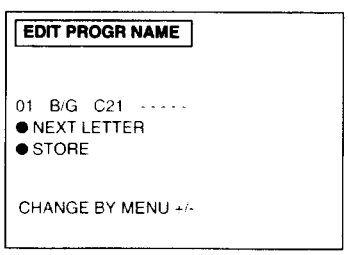
Editing Programme Names

You can edit the programme names up to five letters.

1 **Press MENU [7].**
The MENU screen appears.

2 **Press the white button [17].**
The PRESET screen appears.

3 **Press the blue button [17].**
The EDIT PROGR NAME screen appears.
The first character flashes.



4 **Press MENU+/– [9] to edit the first letter.**
The first letter changes as follows;

A ⟷ B ⟷ . . . ⟷ Z ⟷ 0 ⟷ 1 ⟷ . . . ⟷ 9 ⟷ "–" (space)

5 **Press the red button [17] to move to the next letter.**

6 **Repeat steps 4 to 5, until the fifth letter is chosen.**

7 **Press the green button [17].**
The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

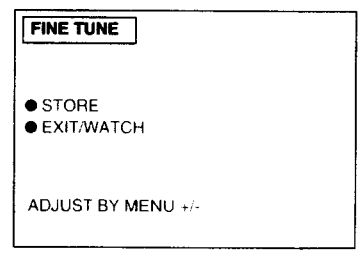
Fine Tuning

You can adjust the receiving condition by the FINE TUNE function.

1 **Press MENU [7].**
The MENU screen appears.

2 **Press the white button [17].**
The PRESET screen appears.

3 **Press the white button [17] again.**
The FINE TUNE screen appears.



4 **Press MENU+/– [9] to adjust the receiving condition.**

5 **Press the red button [17] to store the adjustment, or press the green button [17] not to store.**
Then the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

Tuning in to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

1 **Press C [16] on the Remote Commander. For cable channels, press C [16] twice.**
The indicaton "C" ("S" for cable channels) appears on the screen.

2 **Enter a double-digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).**
The channel appears.
However, the channel is not stored.

Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

1 Select the channel which carries the teletext service you wish to view.

2 Press ▤ 11 to display Teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.

3 Input three digits for the page number using the number buttons 4.
The numbers are displayed on the screen and the requested page appears in a few seconds.
Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

4 Press ▢ 3 to return to the TV mode.

Note: To change the teletext channels. First press ▢ 3 to return to the TV mode, then repeat steps 1 to 3.
Note: If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext

With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons 6 on the Remote Commander.
Press the corresponding colour button 6 on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

Requesting the Index page

Press ▤ 17. The Index page appears.

Accessing the next or preceding page

Press ▤ (PAGE +) or ▤ (PAGE –) 18. The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture

Press ▤ 11 once if you are in text mode or press ▤ 11 twice if in TV mode.
To return to the normal teletext display press ▤ 11 again.

Preventing a teletext page from being updated or changed

Press ▤ (HOLD) 2. The HOLD symbol (▤) appears on the screen and the selected subpage is held until you press ▤ 11 to cancel.

Enlarging the teletext display

Press ▤ 13 once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.

Revealing concealed information (e.g. answers to a quiz)

Press ? (REVEAL) 14. The information is revealed. Press ? 14 again to conceal the information.

Watching TV while waiting for a requested page to be displayed

1 Request a new teletext page.

2 Press ⊠(TEXT CL) 12.
The TV programme is displayed and the symbol ▤ is displayed at the top of the page.
Note: When the requested page is available the page number is displayed at the top of the screen.

3 Press ▤ 11 to view the page.

Note: To cancel the request
Display the teletext page, then press ▤ 11. The request is now cancelled. Press ▢ 3 to resume TV mode.

Using the Favourite Page system

You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

1 Select the page you would like to store using the number buttons 4.

2 Press ⇨ 15 twice.
The colour prompts at the bottom of the screen flash.

3 Press any of the colour buttons 6 on the Remote Commander to store the selected page.
The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

1 Press ⇨ 15.

2 Press the colour button 6 corresponding to the colour prompt onto which the desired page is stored.
The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection, otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode

Press ▢ 12 to request the time. Press again to cancel the request.
Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
1 M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
2/S2 L (AV2) (YC2)	Audio/video and S video signal	Audio/video signal from selected source
3/3 G H (AV3)	Audio/video signal and	No outputs
3/S3 G I (YC3)	Audio/S video signal	

To watch a video input picture, press 2 until the desired video input appears.
To return to the normal TV picture, press 2 repeatedly or press 3.

Note: If you have a decoder, connect it to 1 M.

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal K of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 18.

Note: S video input (Y/C input) I L
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

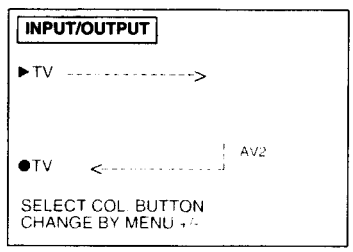
Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selection using this menu.

Checking the Input and Output Sources

1 **Press MENU 7.**
The MENU screen appears

2 **Press the blue button 17 to select INPUT/OUTPUT.**
The INPUT/OUTPUT screen appears.



Selecting an Input Signal

Press the red button 17 to select INPUT. Press MENU +/- 9 to select the desired input source.
You can select among the following sources:

TV ⇔ AV1 ⇔ RGB ⇔ AV2 ⇔ YC2 ⇔ AV3 ⇔ YC3

Selecting an Output Signal

The 2 /S2 connector L outputs the source input from the other connectors. Press the green button 17 to select OUTPUT. Press MENU +/- 9 to select the desired output source.

You can select among the following sources:

TV ⇔ AV1 ⇔ AV2 ⇔ YC2 ⇔ AV3 ⇔ YC3

Note: Press MENU 7 twice or wait until the menu displays disappear automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 **Set the VTR 1/2/3 MDP selector 20 according to the equipment you want to control:**
VTR 1: Beta or VCR
VTR 2: 8mm VCR
VTR 3: VHS VCR
MDP: Video Disc Player

2 **Use the buttons 21 to operate the additional equipment.**

Note: If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.
Note: If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.
Note: When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack J, then the sound from the speakers goes off.
Note: You can't control the sound adjustment except for volume.

For your information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound

- Plug the TV in.
- Press ⏻ A on the TV. (If the standby indicator B is lit, press ▭ 3 or any number button 4 on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using ⏻ A.

Poor or no picture (screen is dark), but good sound

- Press MENU 7 to enter the MENU screen, and press the red button 17, then adjust ◑ and ○.

Good picture but no sound

- Press 🔊+ 19.
- If 🔇 is displayed on the screen, press 🔇 1.

No colour for colour programmes

- Press MENU 7 to enter the MENU screen, and press the red button 17, then adjust ◕.

Remote Commander does not function

- Replace the battery.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

Specifications

Television system B/G/H, D/K

Colour system PAL, SECAM
NTSC 3.58 (video input only)
NTSC 4.43 (video input only)

Channel coverage See "Receivable Channels and Channel Displays"

Picture tube KV-X2501:
Hi-Black Trinitron
Approx. 63cm (25 inches)
(Approx. 60cm picture measured diagonally)
110° deflection
KV-X2901:
Hi-Black Trinitron
Approx. 72cm (29 inches)
(Approx. 68cm picture measured diagonally)
110° deflection

Terminals
Rear 1 21-pin Euro connector
(CENELEC standard)
- inputs for audio and video
- inputs for RGB
- outputs of TV video and audio

2/S2 21-pin Euro connector
- inputs for audio and video
- inputs for S video
- outputs for audio and video (selectable)

Front 3 Video input-phono jack
3 Audio input-phono jacks
S3 S video input-4-pin DIN
Headphone jack: stereo mini jack

Sound output 2x20W music power

Power consumption KV-X2501: 99W
KV-X2901: 108W

Dimension (WxHxD) KV-X2501
Approx. 575x500x487mm
KV-X2901
Approx. 656x566x518mm

Weight KV-X2501: Approx 33kg
KV-X2901: Approx 45kg

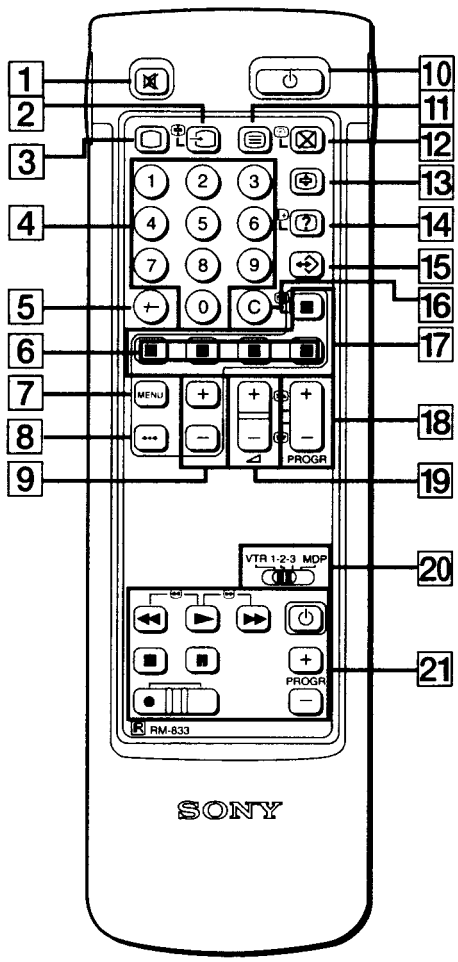
Supplied accessories Remote Commander RM-833, Battery R6

Other features Fastext/Toptext

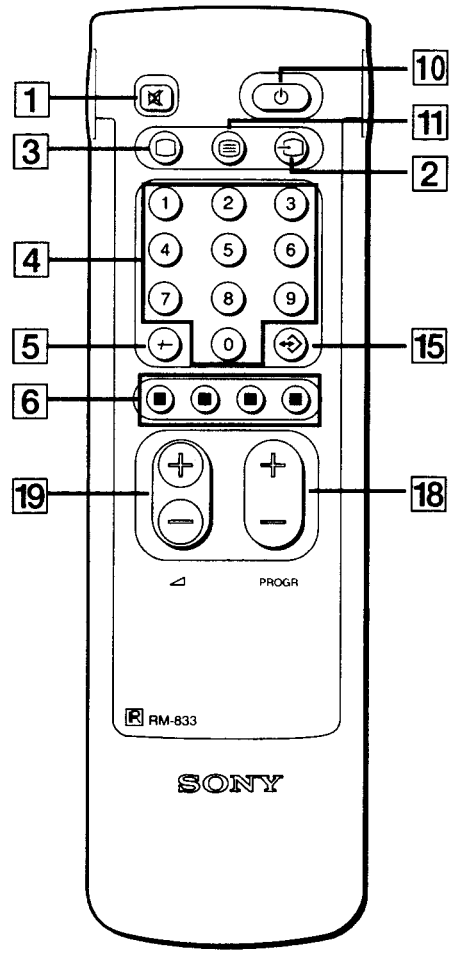
Receivable Channels and Channel Displays

TV System	Receivable Channels	Channel Displays
B/G/H	E2, E3 . . . E12	C02, C03 . . . C12
	E21, E22 . . . E69	C21, C22 . . . C69
Cable TV(1)	S1, S2 . . . S41	S01, S02 . . . S41
Cable TV(2)	S01, S02 . . . S05	S42, S43 . . . S46
	M1, M2 . . . M10	S01, S02 . . . S10
	U1, U2 . . . U10	S11, S12 . . . S20
ITALIA	A, B . . . H	C13, C14 . . . C20
	H1, H2	C11, C12
D/K	R01, R02 . . . R12	C01, C02 . . . C12
	R21, R22 . . . R69	C21, C22 . . . C69

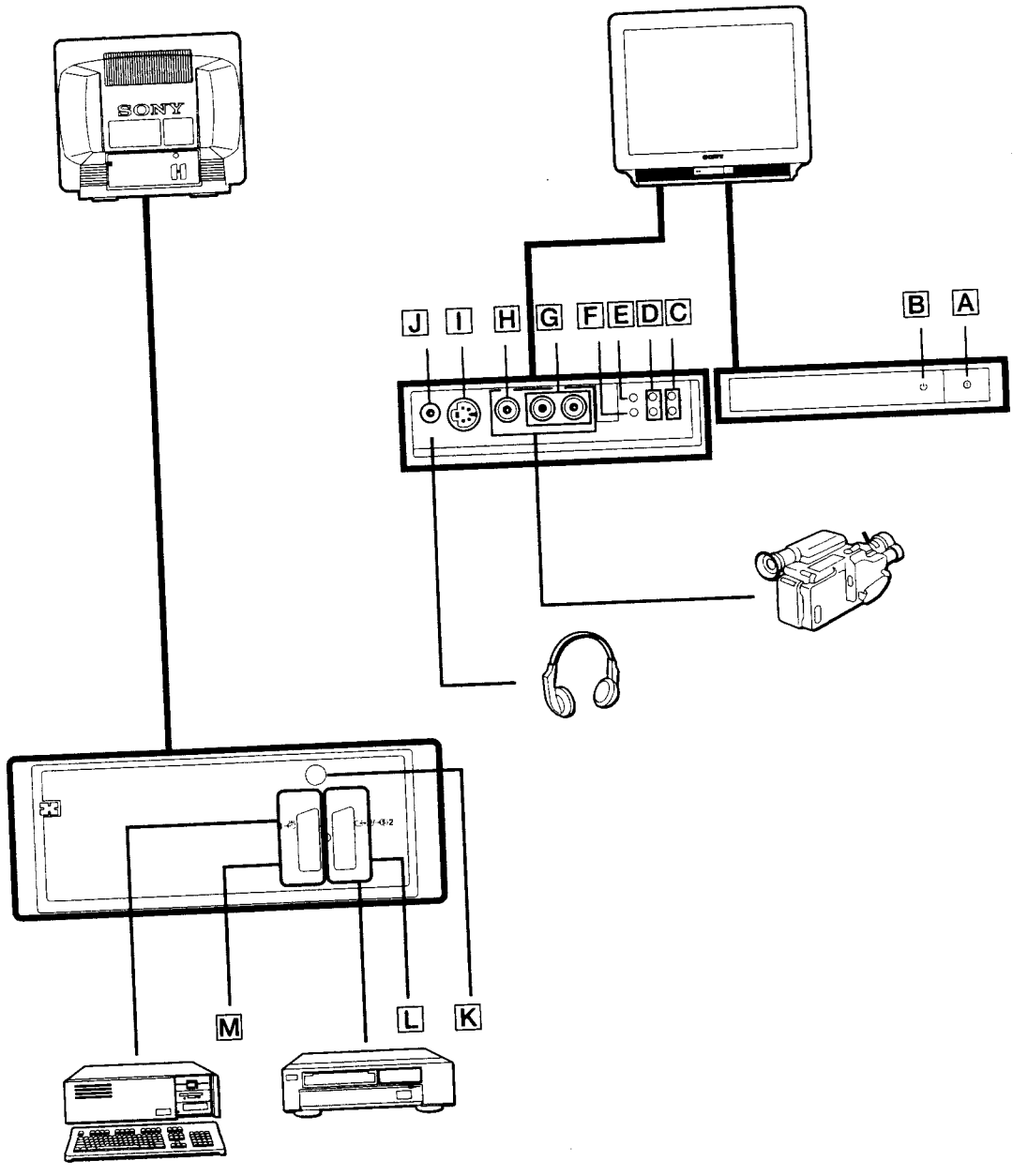
Design and specifications are subject to change without notice.



Full-Function Side



Simple Side


SONY
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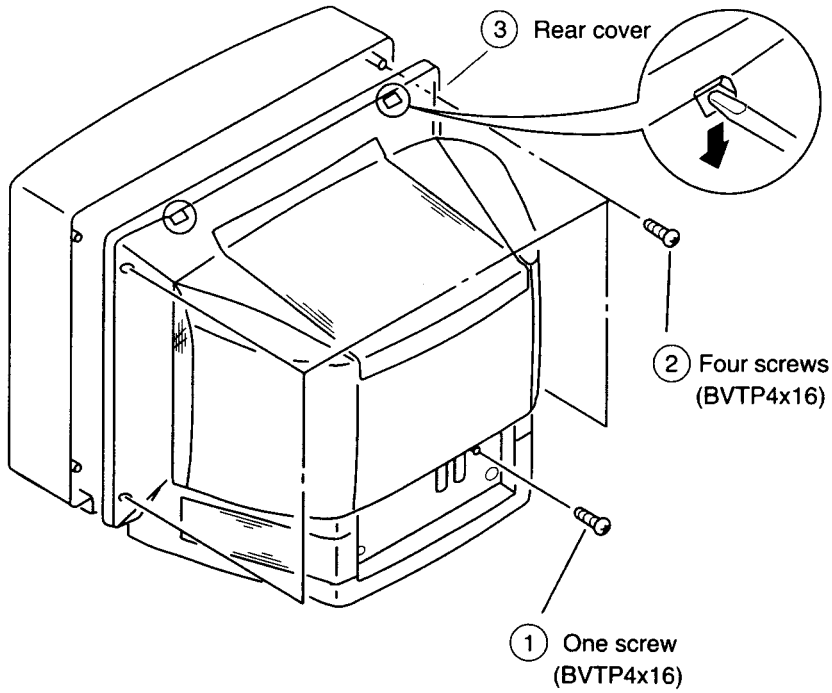
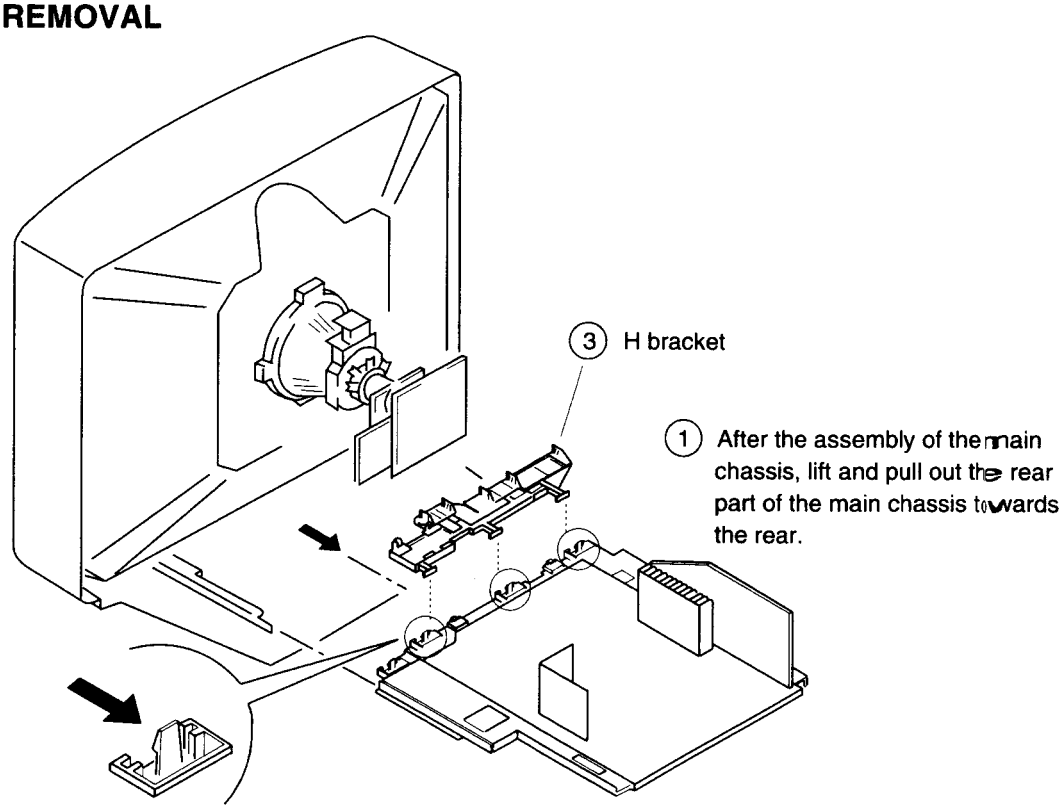
SECTION 2
DISASSEMBLY

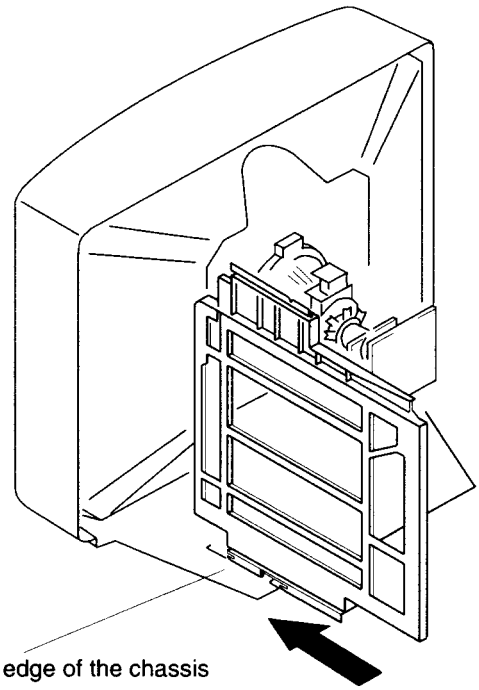
2-1. REAR COVER REMOVAL



2-2. CHASSIS ASSY REMOVAL

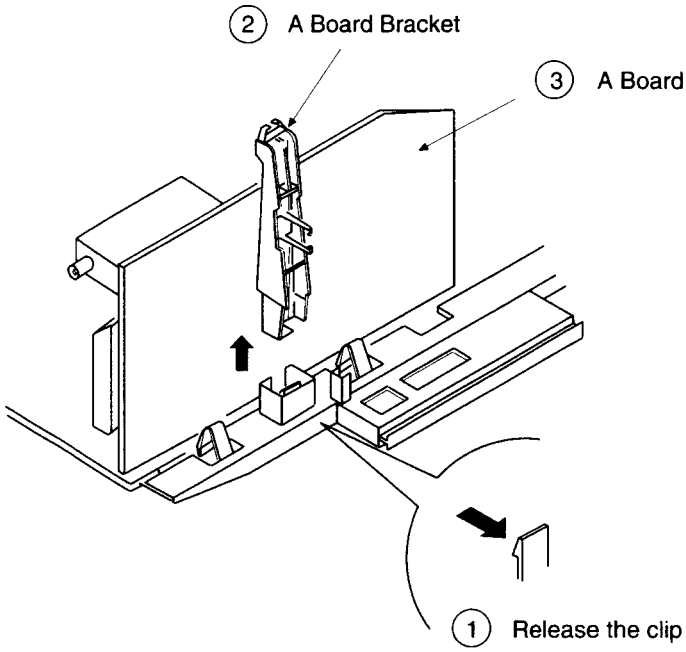


2-3. SERVICE POSITION

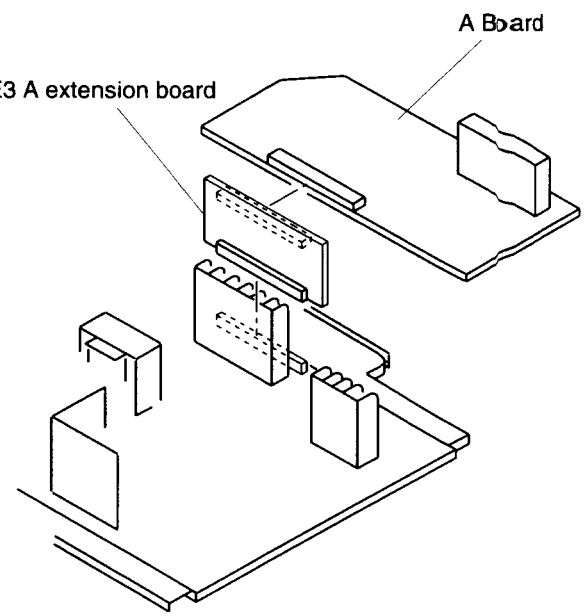


Locate the 2 slots on the edge of the chassis bracket in the locating holes and slide in the direction of the arrow

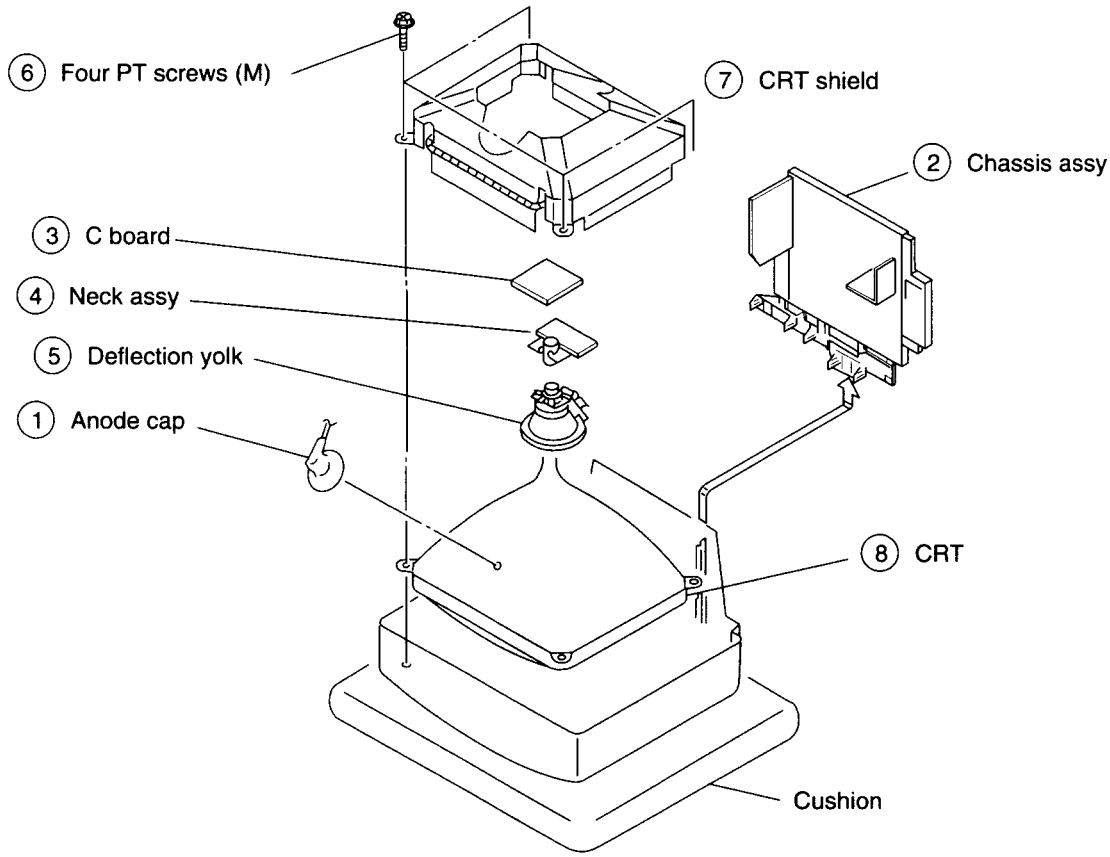
2-4. A BOARD REMOVAL



2-5. EXTENSION BOARD



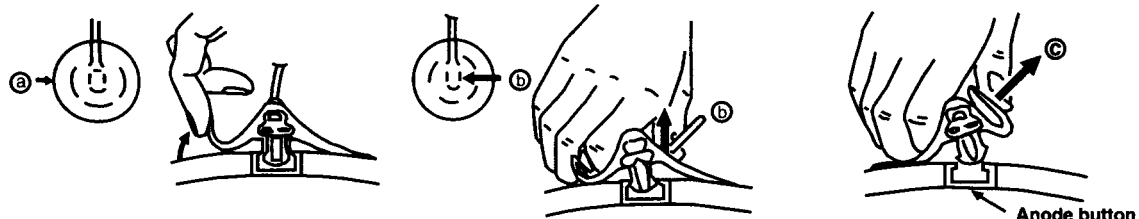
2-6. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

*** REMOVING PROCEDURES.**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

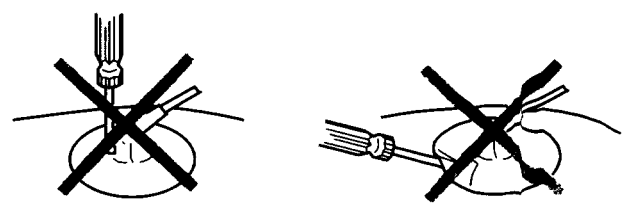
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

• HOW TO HANDLE AN ANODE-CAP

① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3
SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

◑ Contrast ..... 80% (or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

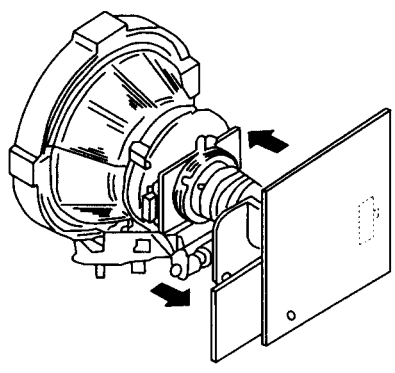
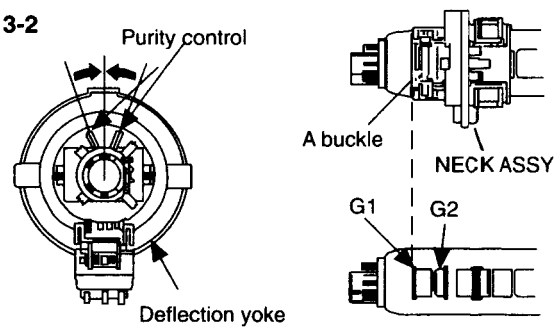


Fig. 3-1

Fig. 3-2



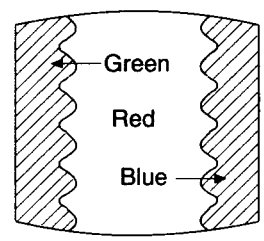


Fig. 3-3

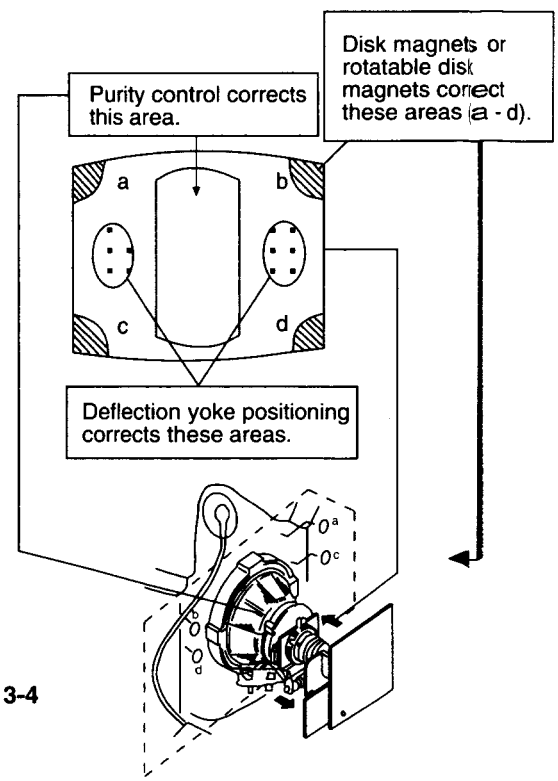


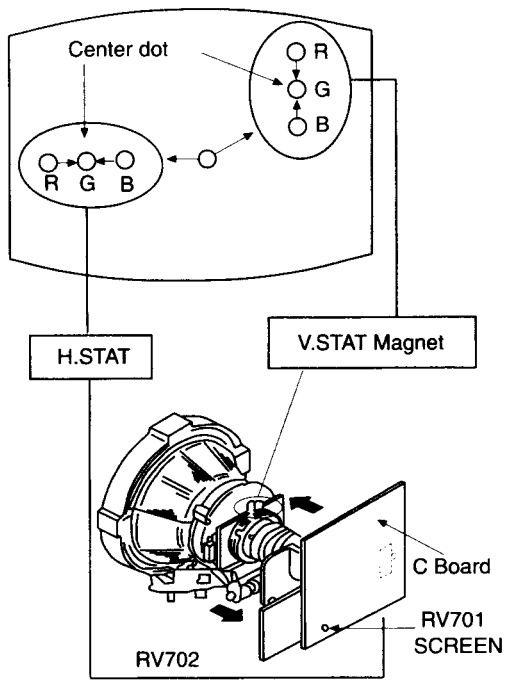
Fig. 3-4

3-2. CONVERGENCE

Preparation:

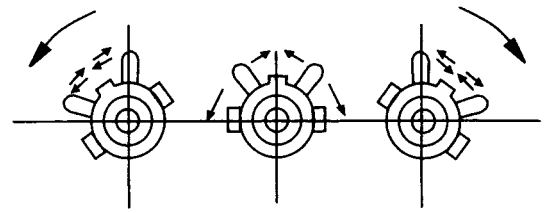
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

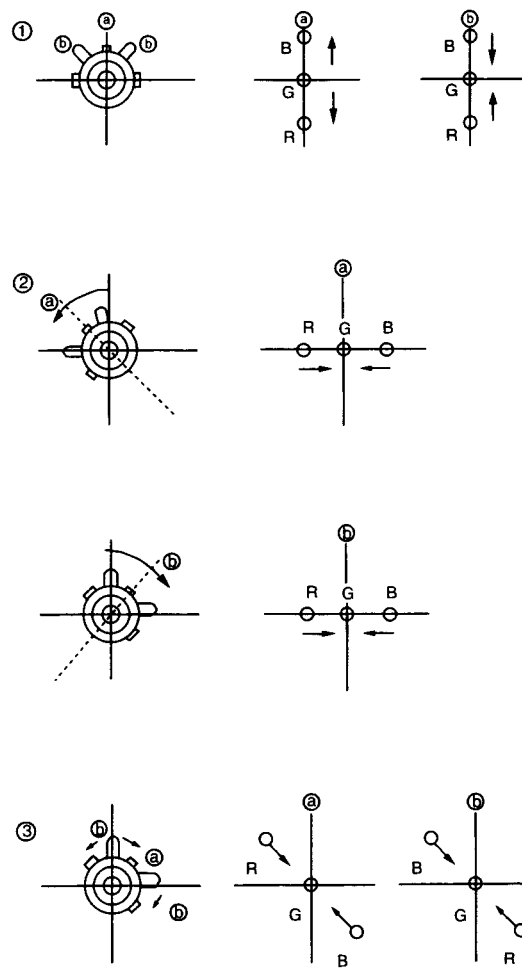


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

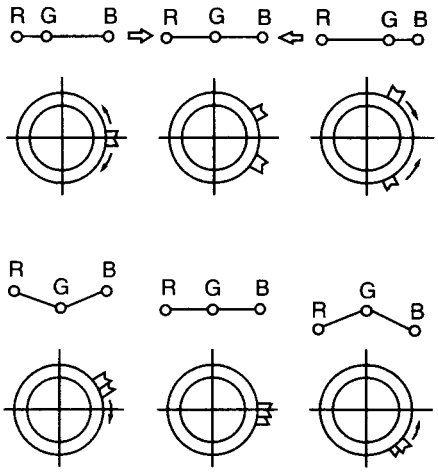
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

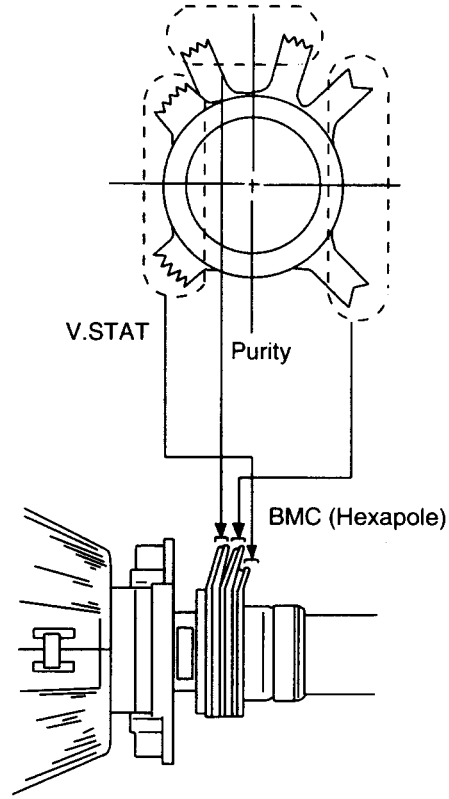


4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet





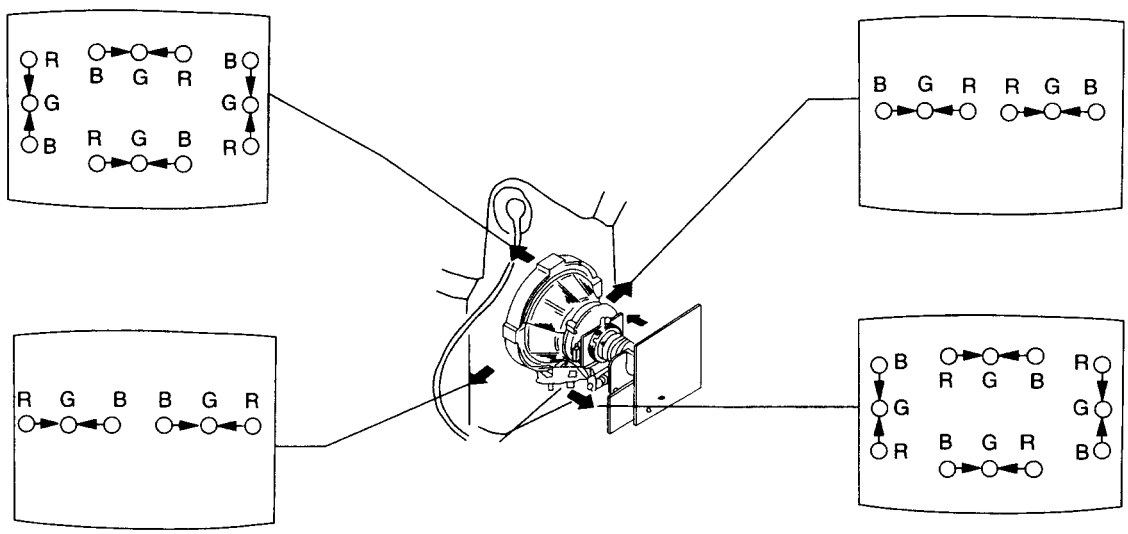
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment.

Preparation:

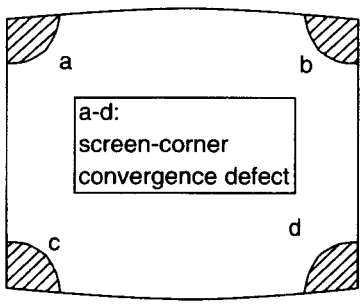
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

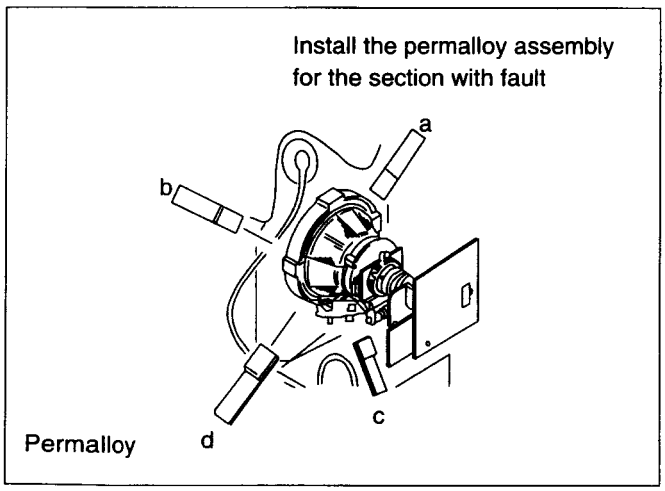
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Re-install the deflection yoke spacer.



(4) Screen corner convergence.

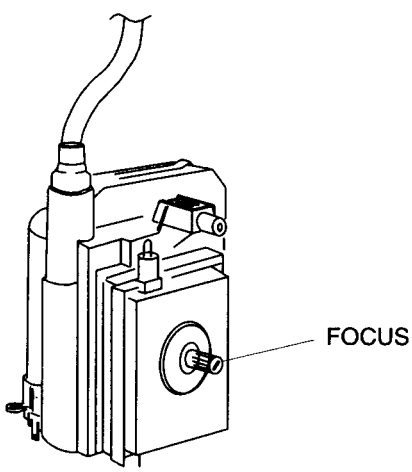
If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.





3-3. Focus

Adjust the focus to optimize the screen.



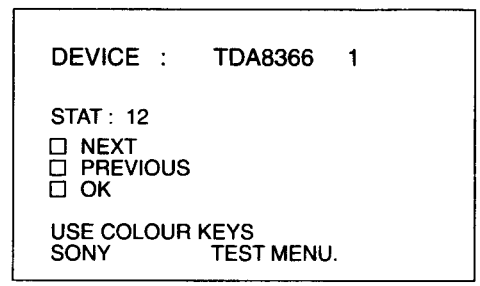
3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.



4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

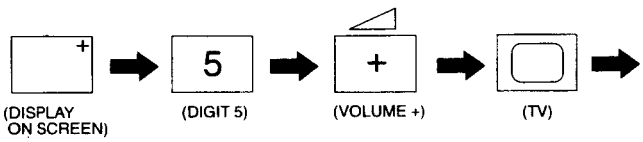
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

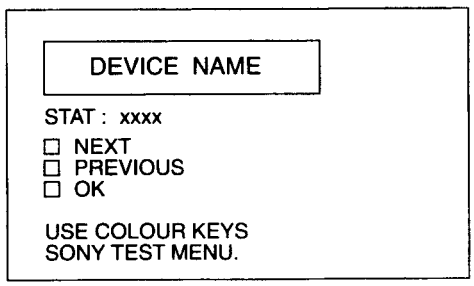
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.

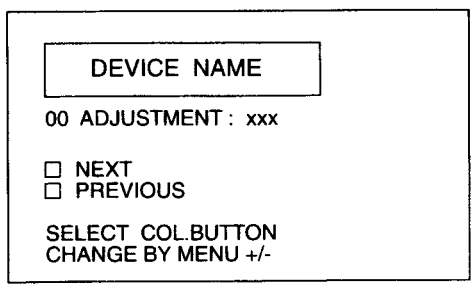


"TT " will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).



5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the and buttons to change the data to comply with each standard.

6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. (Stereo Models Only)

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Corn Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Srce Sel 1	00	AFC Wind	00
Srce Sel 2	00	IF Sensty	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
Pll Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	80
		E Min	01

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT ' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	dummy
39	dummy
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Pressetting Mode The channel pressetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by µ-Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

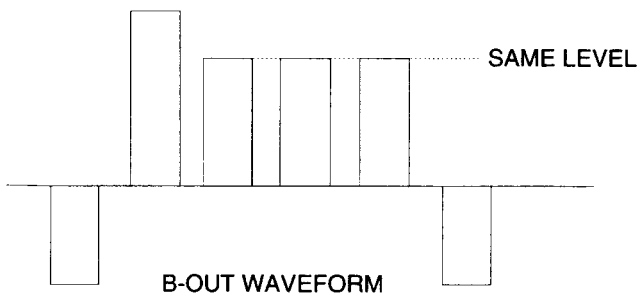
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin (1) of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin (3) of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.



STEREO SEPARATION ADJUSTMENT

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

I.F. COIL ADJUSTMENT (T101) - I, STANDARD FOR U.K. MODELS.

1. Apply a 39.5MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

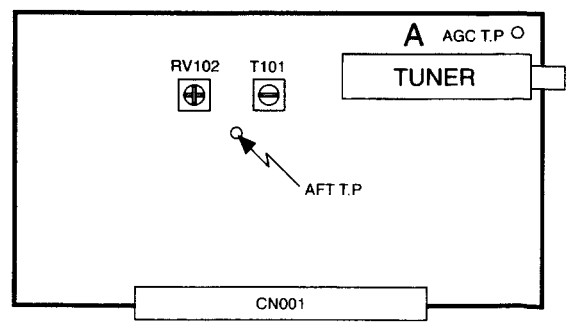
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off- air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



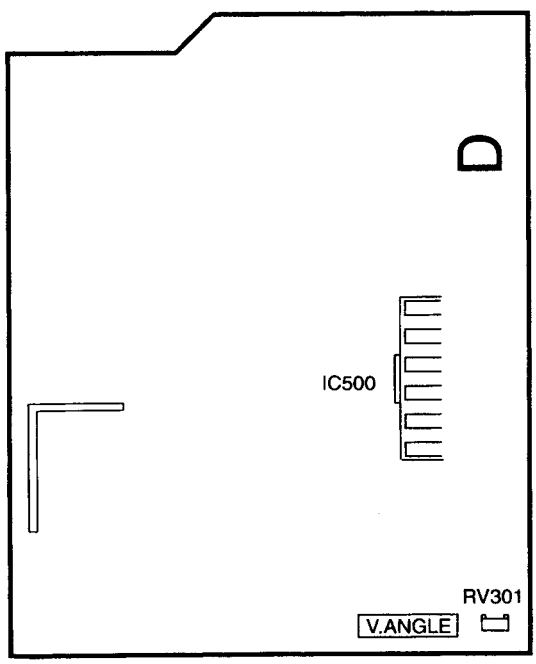
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

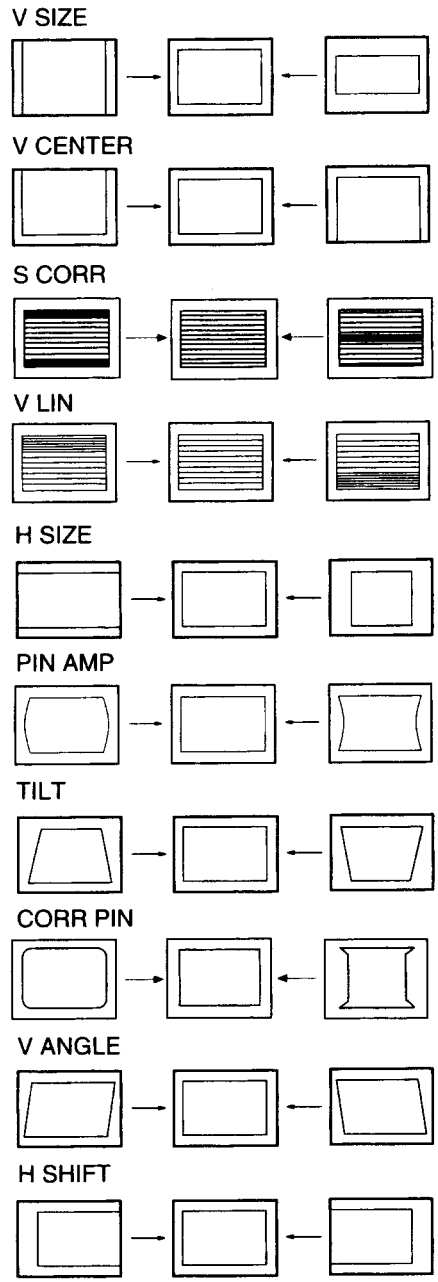
1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)



- D Board Component Side -



4-3. BE3 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failiure to respond to IIC. In the event of one of these situations arrising the software will first try to release the bus if busy (Failiure to do so will report with continous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

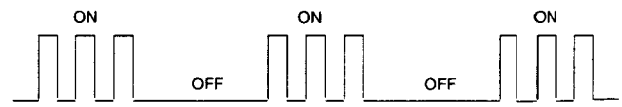
If a fatal error is found the set will simply stay in whichever state it was when the error occured, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	√
Teletext	10	
Jungle	11	√
Video_sw	12	
Tuner	13	√
Nicam	14	
Audio_cont	15	√

Flash Timing Example : e.g. error number 3.

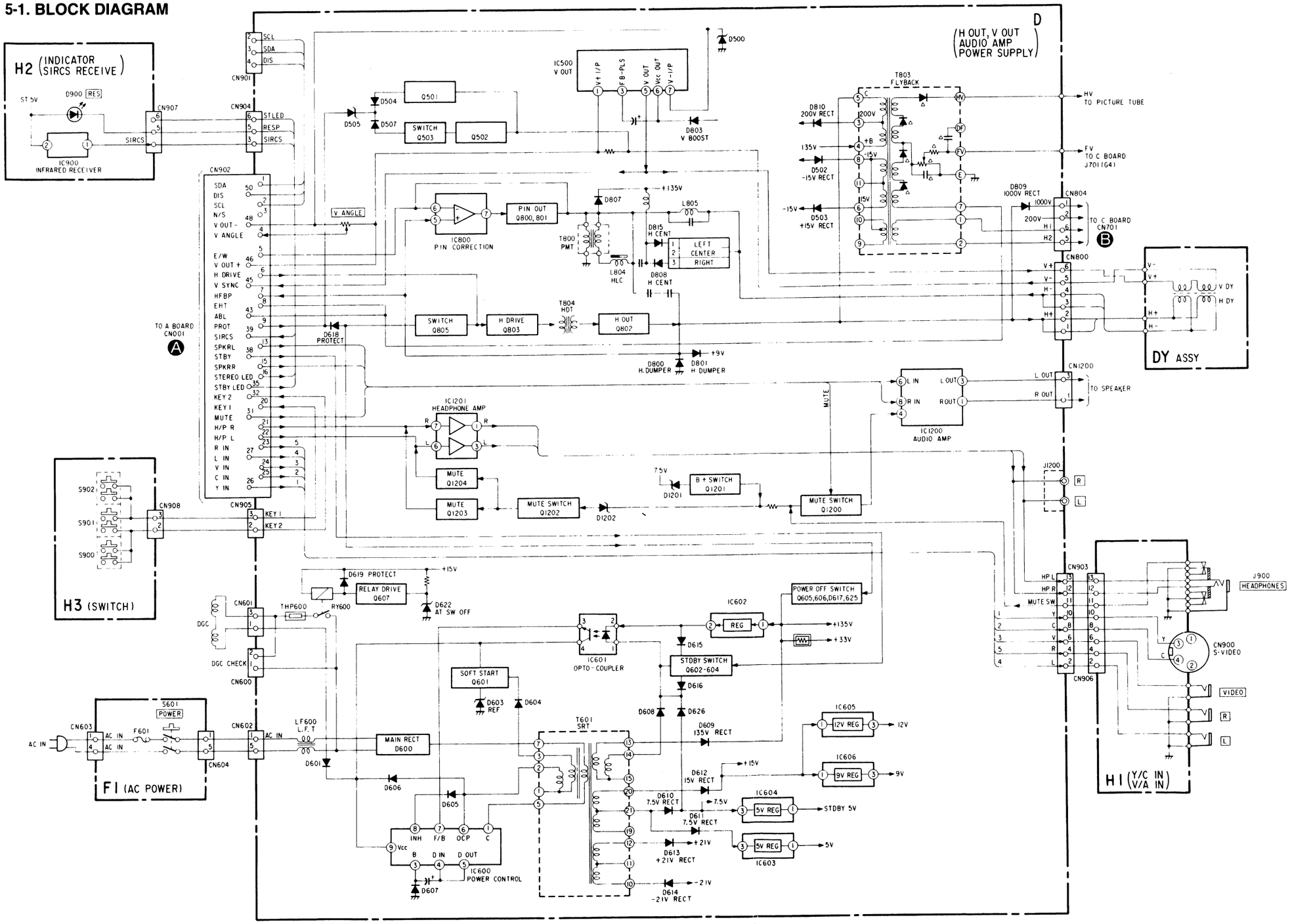
Stby LED

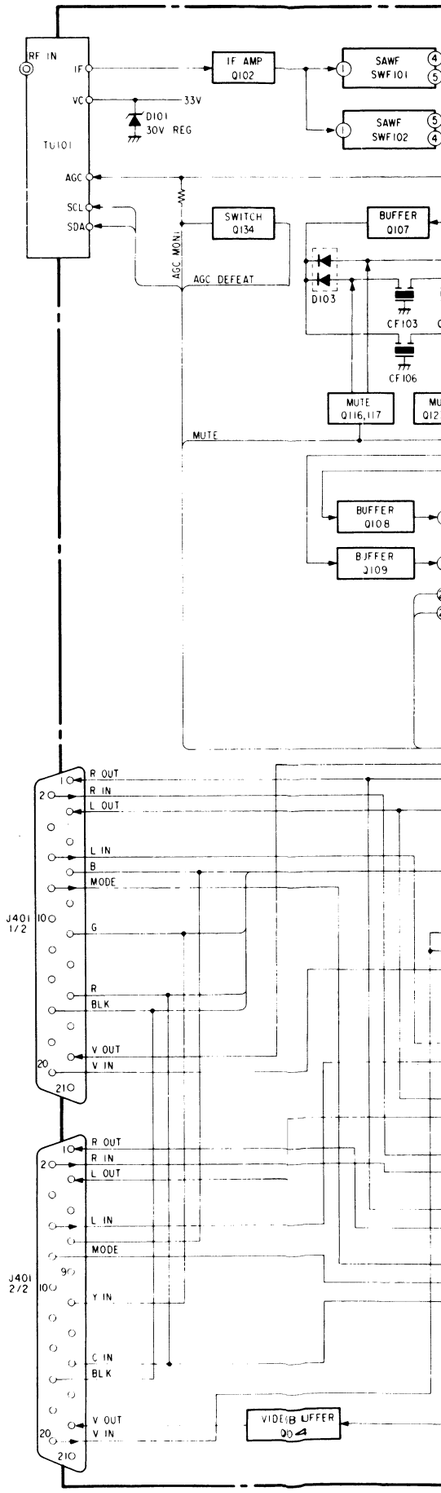


MEMO

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM





D
(H OUT, V OUT
AUDIO AMP
POWER SUPPLY)

T803
FLYBACK

HV
TO PICTURE TUBE

FV
TO C BOARD
J701 (G4)

D809
1000V RECT

CN804

TO C BOARD
CN701
B

CN800

V DY
H DY

DY ASSY

CN1200

TO SPEAKER

IC1200
AUDIO AMP

J1200
R
L

CN903

J900
HEADPHONES

CN900
S-VIDEO

CN906

VIDEO
R
L

12V
9V

HI (Y/C IN
V/A IN)

A
(VIF/SIF, SYNC SE
JUNGLE, AUDIO SE
A/V SELECT

IC101
VIF/SIF

RF IN
IF AMP
Q102
SAWF
SWF101
SAWF
SWF102
TU101
33V
D101
30V REG
AGC
SCL
SDA
SWITCH
Q134
AGC MONI
AGC DEFEAT
BUFFER
Q107
D103
CF103
CF104
CF106
MUTE
Q116,117
MUTE
Q123,124
VIF I/P
VIF I/P
SIF
SIF
TAGC
CAGC
QSS
FMI
FM2
AF2 OUT
AF1 OUT
V OUT
VIDEO AMP
Q132,131
VCO2
VCO1
VI
VO
T101
77.8MHz
CF102
AFT
TOP
STD SW
AFT
AGC ADJ
SYS

BUFFER
Q130
BUFFER
Q133

IC202
SYNC SEP
SYNC SEP
PHASE
COMP
H OSC
SYNC AMP
Q120
OSC BUFFER
Q114

IC201
AUDIO SELECT
BUFFER
Q108
BUFFER
Q109
L IN
R IN
SDA
SCL
PILOT
MONO
OSC
HP L
HP R
SP L
SP R
L IN
R IN
L OUT
R OUT
MUTE
SDA/SCL

IC1002
VIDEO PROCESSER
VIDEO
SCL
SDA
SYNC
BLACK
GREEN
BLUE
RED
RS TB
CLK IN
TDATA
TCLK
TCSB
WINDOW
VIDEO
OSC OUT
IDATA
TCLK
SYNC
WIN
OSC I
IC1001
X1001
13.875MHz
SYNC BUFFER
Q1001

IC1003
RGB SW

IC302

IC303

IC301
JUNGLE
INT CVBS IN
SECAM REF
SCP OUT
VID. OUT
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
HFLB IN
EXT CUBS IN
CUBS OUT
SUHS-Y
SUHS-C
R
G
B
FB
BI CURR IN
D303
D304
D305
D311
D380
BCL IN
H OUT
-2 FILTER
EW OUT
V+ OUT
V- OUT
EHT IN
3.58MHz
4.43MHz
X1101
Y IN
Y OUT
AMP
Q314
AGC OUT
SCL
SDA
VM AMP
Q381
VM OUT
Q313, 312
MUTE
Q380
(HFBP)

J401
1/2
J401
2/2
R OUT
R IN
L OUT
L IN
B
MODE
G
R
BLK
V OUT
V IN
C IN
BLK

IC401
A/V SELECT
V2
Y2
V3
V OUT 2
LV3
LV2
L TV
L OUT 2
RV3
RV2
R TV
R OUT 2
S3
S2
C2
R OUT I
L OUT I
SCL
SDA
TV
Y OUT
C OUT
V OUT I
EXT SYNC
TEXT OUT
VI
LVI
YI
RVI
CI

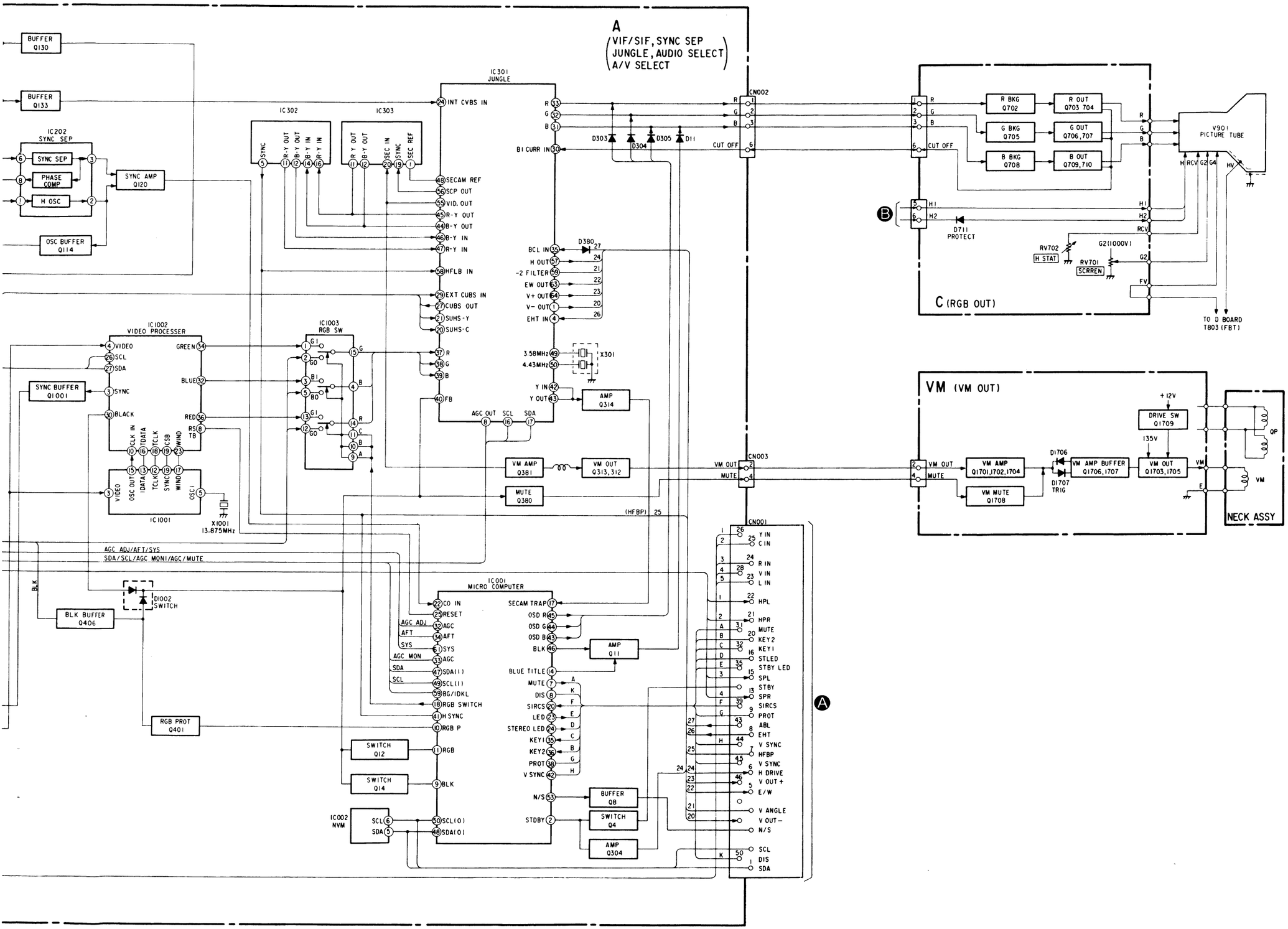
V BUFFER
Q403
BUFFER
Q402
VIDEO BUFFER
Q404

AGC ADJ/AFT/SYS
SDA/SCL/AGC MONI/AGC/MUTE
BLK
BLK BUFFER
Q406
D1002
SWITCH
RGB PROT
Q401

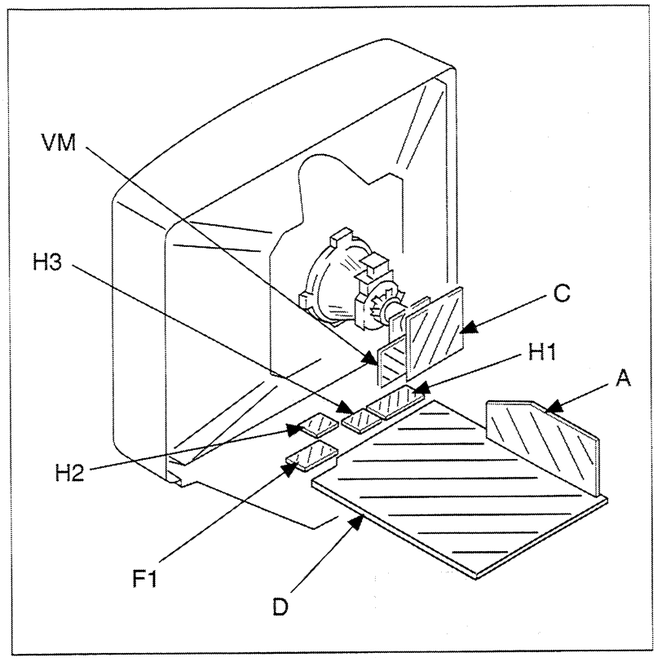
IC001
MICRO COMPUTER
CO IN
RESET
AGC
AFT
SYS
AGC
SDA(1)
SCL(1)
BG/IDKL
RGB SWITCH
H SYNC
RGB P
RGB
BLK
SCL(0)
SDA(0)
SECAM TRAP
OSD R
OSD G
OSD B
BLK
BLUE TITLE
MUTE
DIS
SIRCS
LED
STEREO LED
KEY1
KEY2
PROT
V SYNC
N/S
STDBY
AMP
Q11
BUFFER
Q8
SWITCH
Q4
LAMP
Q304
AGC ADJ
AFT
SYS
AGC MON
SDA
SCL

IC002
NVM
SCL
SDA

SWITCH
Q12
SWITCH
Q14


A
(VIF/SIF, SYNC SEP
JUNGLE, AUDIO SELECT
A/V SELECT)
BUFFER Q130
BUFFER Q133
IC202 SYNC SEP
SYNC SEP
PHASE COMP
H OSC
SYNC AMP Q120
OSC BUFFER Q114
IC301 JUNGLE
IC302
IC303
INT CVBS IN
SECAM REF
SCP OUT
VID. OUT
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
HFLB IN
EXT CUBS IN
CUBS OUT
SUHS-Y
SUHS-C
BCL IN
H OUT
-2 FILTER
EW OUT
V+ OUT
V- OUT
EHT IN
3.58MHz
4.43MHz
X301
Y IN
Y OUT
AMP Q314
AGC OUT
SCL
SDA
D303
D304
D305
D11
D380
BI CURR IN
CUT OFF
CN002
IC1002 VIDEO PROCESSER
IC1003 RGB SW
SYNC BUFFER Q1001
VM AMP Q381
VM OUT Q313,312
MUTE Q380
CN003
IC1001
X1001 13.875MHz
(HFBP)
CN001
AGC ADJ/AFT/SYS
SDA/SCL/AGC MONI/AGC/MUTE
BLK
D1002 SWITCH
BLK BUFFER Q406
IC001 MICRO COMPUTER
RGB PROT Q401
SWITCH Q12
SWITCH Q14
IC002 NVM
SECAM TRAP
OSD R
OSD G
OSD B
BLK
AMP Q11
BLUE TITLE
MUTE
DIS
SIRCS
LED
STEREO LED
KEY1
KEY2
PROT
V SYNC
N/S
STDBY
BUFFER Q8
SWITCH Q4
AMP Q304
Y IN
C IN
R IN
V IN
L IN
HPL
HPR
MUTE
KEY2
KEY1
STLED
STBY LED
SPL
STBY
SPR
SIRCS
PROT
ABL
EHT
V SYNC
HFBP
V SYNC
H DRIVE
V OUT +
E/W
V ANGLE
V OUT –
N/S
SCL
DIS
SDA
C (RGB OUT)
R BKG Q702
G BKG Q705
B BKG Q708
R OUT Q703 704
G OUT Q706,707
B OUT Q709,710
V901 PICTURE TUBE
H1
H2
D711 PROTECT
RV702 H STAT
RV701 SCRREN
G2(1000V)
TO D BOARD T803 (FBT)
VM (VM OUT)
+12V
DRIVE SW Q1709
135V
VM AMP Q1701,1702,1704
VM MUTE Q1708
D1706
D1707 TRIG
VM AMP BUFFER Q1706,1707
VM OUT Q1703,1705
QP
VM
NECK ASSY

5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

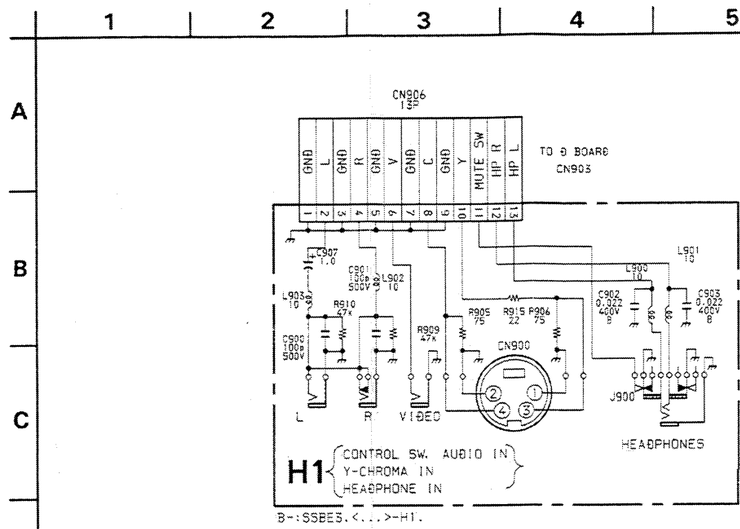
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

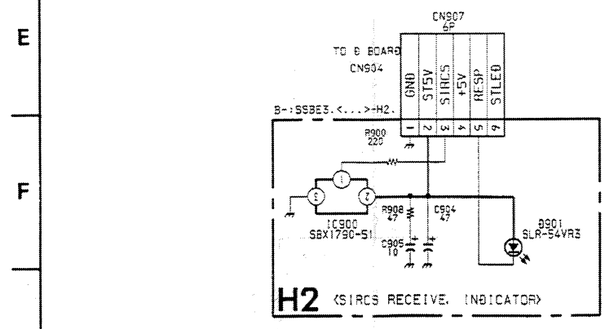
Note :

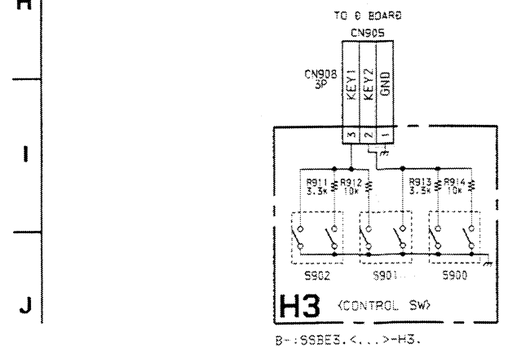
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

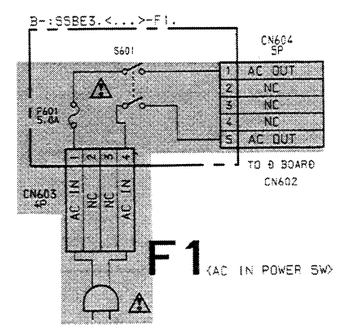
  Pitch : 5mm
  Rating electrical power : ¼W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000KΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- ▭ : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B+ bus.
- : B− bus.
- : signal path.(RF)
- : earth - ground
- : earth - chassis



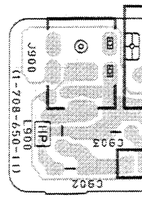




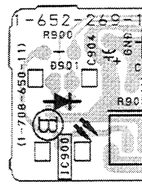


H1

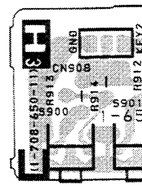
– H1 BOARD



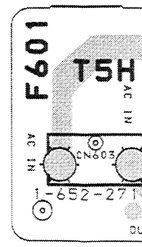
– H2 BOARD



– H3 BOARD



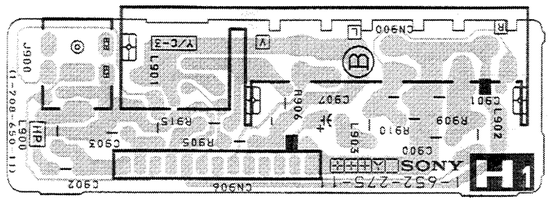
– F1 BOARD



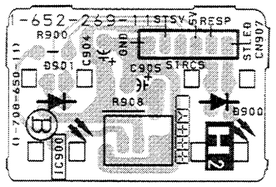
H1 [CONTROL SW, AUDIO IN Y-CHROMA IN, HEADPHONE IN] **H2** [SIRCS RECEIVE INDICATOR] **H3** [CONTROL SW] **F1** [AC IN POWER SW] **D** [HV OUT PIN OUT POWER SUPPLY]

NOTE:
The circuit in
600 Vp-p. Car
inspection or r

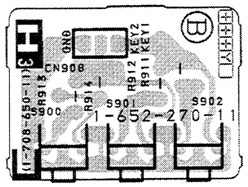
– H1 BOARD –



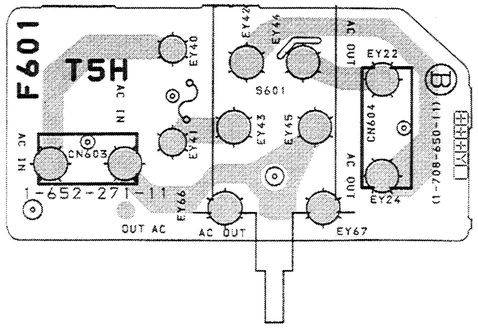
– H2 BOARD –



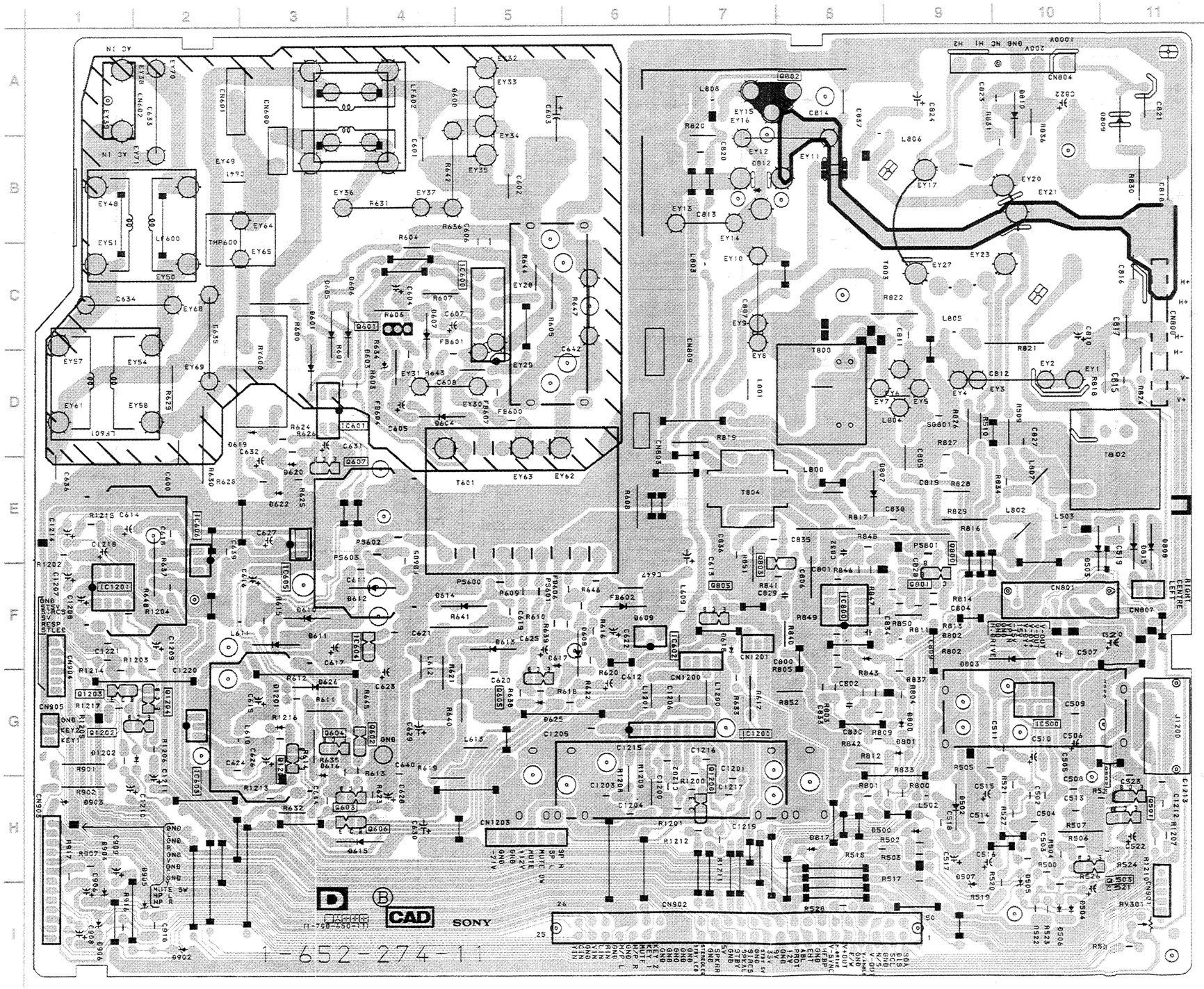
– H3 BOARD –



– F1 BOARD –



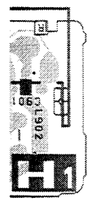
– D BOARD –

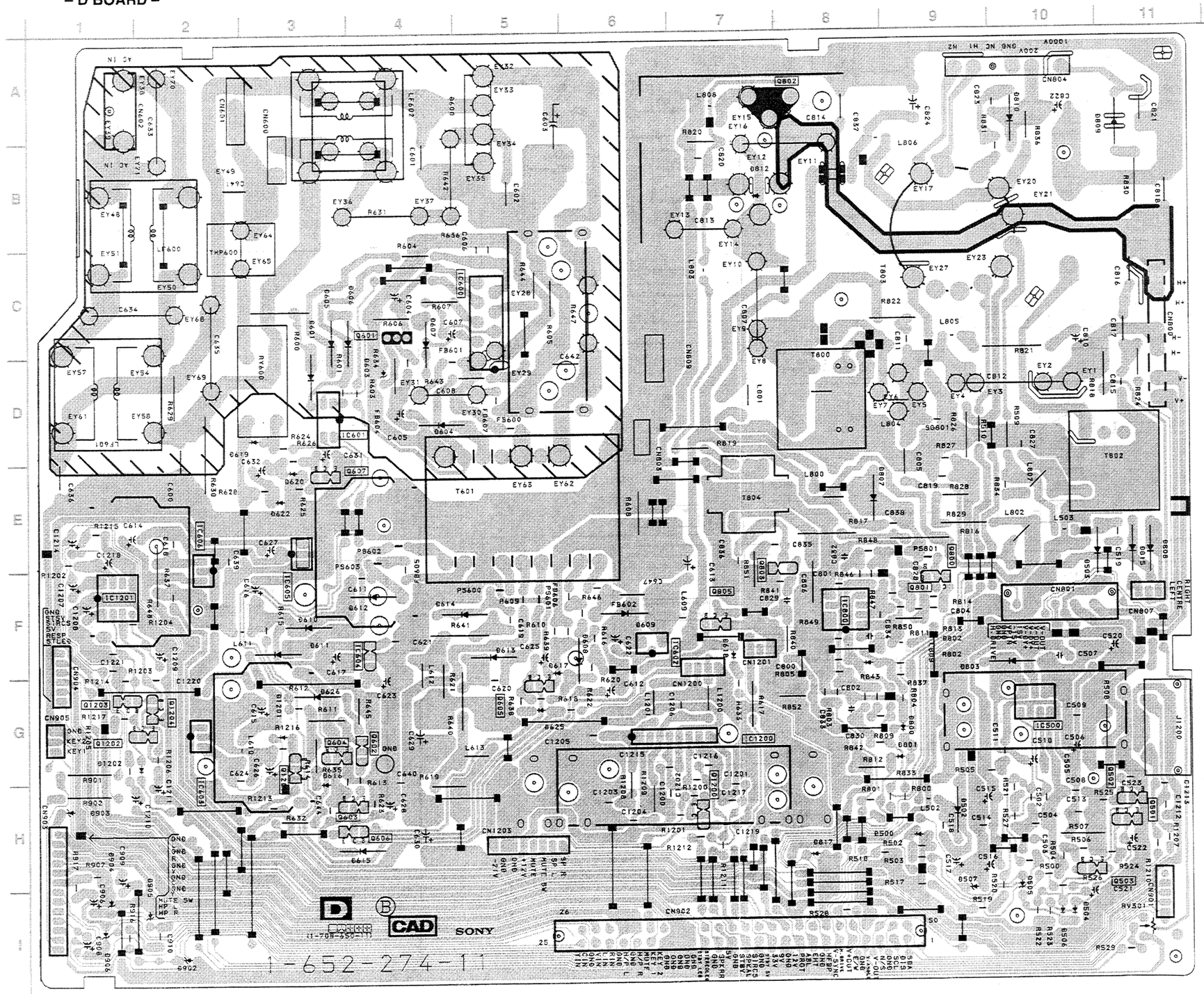


H2 [SIRCS RECEIVE INDICATOR] **H3** [CONTROL SW] **F1** [AC IN POWER SW] **D** [HV OUT PIN OUT POWER SUPPLY]

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

– D BOARD –





IC	
IC500	G - 10
IC600	C - 5
IC601	D - 4
IC602	F - 7
IC603	H - 2
IC604	F - 4
IC605	F - 3
IC606	E - 2
IC800	F - 8
IC1200	G - 7
IC1201	F - 1

TRANSISTOR	
Q501	H - 11
Q502	H - 11
Q503	I - 11
Q601	C - 4
Q602	G - 4
Q603	H - 3
Q604	G - 3
Q605	G - 5
Q606	H - 4
Q607	E - 4
Q800	E - 9
Q801	F - 9
Q802	A - 8
Q803	F - 7
Q805	F - 7
Q1200	H - 7

DIODE	
D500	G - 9
D502	G - 9
D503	F - 10
D504	I - 10
D505	I - 10
D506	I - 10
D507	G - 9
D600	A - 4
D601	C - 3
D603	D - 4
D604	D - 4
D605	C - 3
D606	C - 4
D607	C - 4
D608	F - 6
D609	F - 6
D610	F - 3
D611	F - 3
D612	F - 4
D613	F - 5
D614	F - 4
D615	H - 4
D616	G - 3
D617	F - 5
D618	F - 7
D619	D - 2
D620	E - 3
D622	E - 3
D625	G - 5
D626	G - 3
D800	G - 9
D801	G - 9
D802	F - 9
D803	F - 9
D807	E - 9
D808	E - 11
D809	A - 11
D810	A - 10
D812	B - 7
D815	E - 11
D817	H - 8
D902	I - 2
D903	H - 1
D904	H - 1
D905	H - 2
D906	I - 1

D HV OUT
PIN OUT
POWER SUPPLY

CN602 5P — TO CN600 2P

Q600 D4SB60L-F
C603 220 400V
JW014 5MM
JW128 10MM
R600 39k 5W
D601 EM1

Q601 2SC3852A
R647 0.1 1/2W :RF
R634 22
R603 10k
C606 1000p 500V
C605 10 100V
C604 100
R636 1k
R604 1.8k
D603 MTZJ-T-77-6.8C AMP
IC600 STR-S6708 POWER-CONTROL
C GND B D IN D OUT OCP F/B INH
FB601 1.1
R606 (JW) 12 5W
D607 EG1Z
C607 220 25V
R607 1Ω 1W :RS
R605 0.27 2W :RS
C608 1500P 2kV E
R644 100

CN901 5P — SERVICE CONNECTOR

GND	SCL	SDA
1	2	3
DIS	NC	
4	5	

CN902 50P

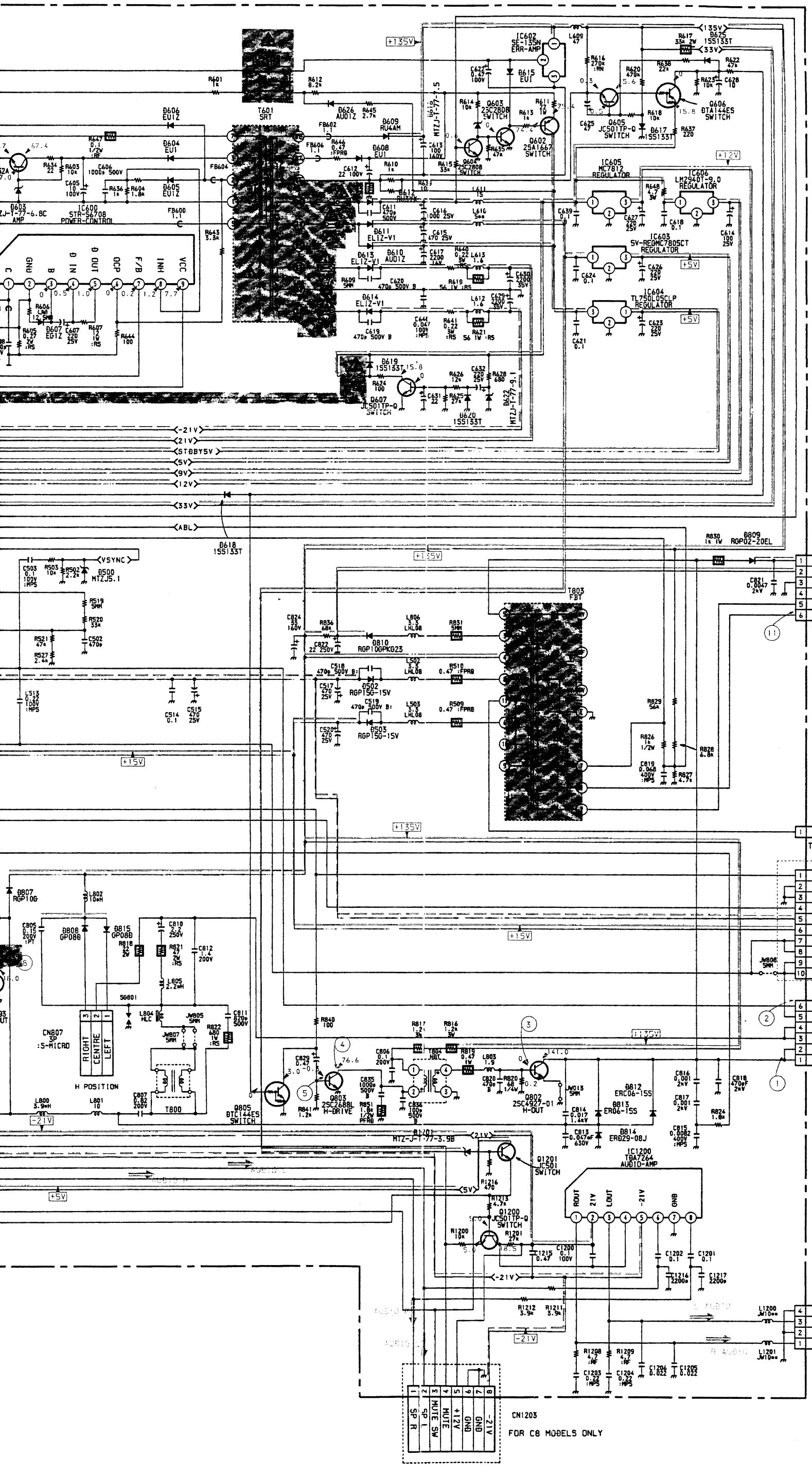
SDA, DIS, SCL, GND, N/S, V-OUT, V.ANGLE, GND, E/W, V+OUT, H DRIVE, V-SYNC, HFBP, GND, EHT, ABL, PROT, 12V, GND, 9V, 33V, STBY 5V, GND, SIRCS, AUDIO L, STBY, GND, 5V, AUDIO R, GND, STEREOLED, STBY LED, GND, GND, GND, GND, GND, KEY 2, KEY 1, MUTE, H/P R, GND, H/P L, GND, RIN, LIN, VIN, GND, CIN, YIN

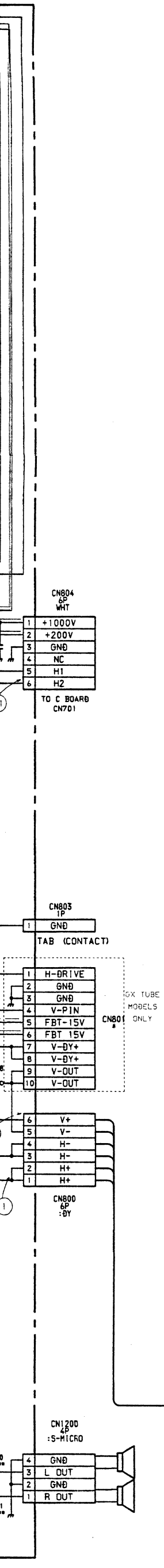
+21V
R833 2.2k :FPRD
R522 22k
R525 22k
C522 10
Q504 1SS133T
Q505 MTZJ-T-77-3.6A
Q506 1SS133T
Q507 MTZJ-T-77-5.1B
Q501 JC501TP-Q SWITCH
R524 4.7k
R525 4.7k
C521 10 25V
Q502 JA101-Q SWITCH
Q503 DTC144ES SWITCH
R526 2.2k
RV301 470k
R517 1.8k
R518 1.8k
R528
R529
+33V
+SAW
EHT
HDRIVE
VPIN
E/W
HFBP
+12V
+5V
R812 2.2k
R852 18k 1/4W
R842 100k
C830 4.7nF
R843 390k
R803 3.3k
R805 4.7k
C801 0.01
R837 15k
R802 15k
R804 12k
D802 1SS133
D801 1SS133
D817 MTZJ5.6
C800 0.0056 50V
L809 47μH
D800 1SS133
C1207 100 16V
C1214 100 16V
IC1201 TBA2822M HEADPHONE AMP
R1204 2.2k
C1209 4.7
C1211 2.2
R1206 8.2k
C1210 2.2
R1205 8.2k
C1208 4.7
R1203 2.2k
C1218 220 16V
R1202 10 :FPRD
Q1202 DTC114ES SWITCH
Q1204 DTC143TS SWITCH
R1217 47k
Q1203 DTC143TS SWITCH
IC800 LM393P 5V CONTROL
R917 22
R907 75
R916 22
R902 59 1/2W :RC
R901 59 1/2W :RC
D902 MTZJ9.1
D903 MTZJ9.1
D904 MTZJ9.1
D905 MTZJ9.1
D906 MTZJ9.1
C909 1.0
C906 47
C910 0.01
C908 47
TO A BOARD CN001

IC500 STV9379 VERTICAL OUTPUT
V+I/P, VCC, F.B.-PLS, VEE, OUT-PUT, VCC (OUT), V-I/P
C503 0.1 100V :MPS
R503 10k
R502 2.2k
D500 MTZJ5.1
VSYNC
R519 5MM
R520 33k
C502 470p
R521 47k
R527 2.4k
C510 220
C507 2.2 :BP
C511 0.33 63V
R500 33k
R505 1.2 :FPRD
R507 150 2W
L515 0.22 100V :MPS
D803 GP08B-V.BOOST
R504 39k
R506 12k
C504 470p
C506 470 25V
C509 0.1
R508 1.5 2W :RS
+15V

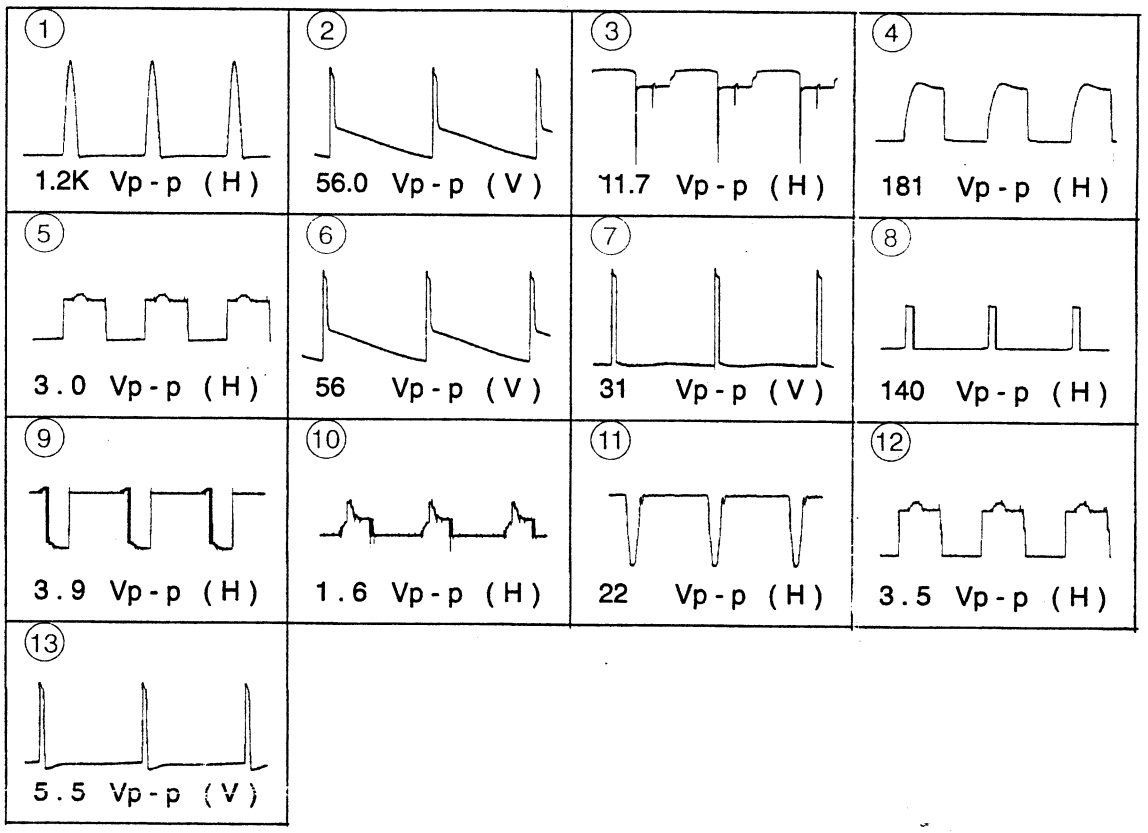
D807 RGP10G
L802 10mH
R847 330k 1/4W
R846 100k
C832 1nF
R848 220k
D808 GP08B
D815 GP08B
R818 2W
R849 10k
R814 330
C804 0.1
Q801 2SC4793 E/W-OUT
R813 470 1W
R850 4.7k
R811 5MM (JW)
Q800 JC501TP-Q BUFFER
JW801
S6801
L804 MLC
CN807 3P :S-MICRO
RIGHT, CENTRE, LEFT
H POSITION
L800 3.9mH
L801 10
C807 0.82 200V
-21V
+5V

CN905 3P: KEY1, KEY2, GND — TO H3 BOARD CN908
CN903 13P: GND, L, GND, R, GND, V, GND, C, GND, Y, MUTE SW, HP R, HP L — TO H1 BOARD CN906
CN904 8P: GND, S15V, SIRCS, +5V, RESP, STLED — TO H2 BOARD CN907

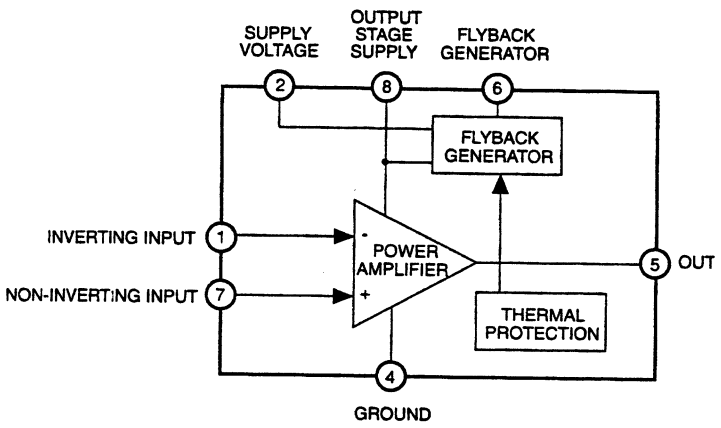

+135V
IC602 SE-135N ERR-AMP
L609 47
R617 33k 2W
D625 1SS133T
135V
33V
R616 270k :RN
R620 470k
R638 22k
R622 47k
C622 0.47 100V
D615 EU1
R623 10k
C628 10
Q606 DTA144ES SWITCH
Q605 JC501TP-Q SWITCH
D617 1SS133T
R637 220
C625 47
R618 10k
R614 10k
Q603 2SC2808 SWITCH
R611 22 1W
R613 1k
Q602 2SA1667 SWITCH
R635 47k
Q604 2SC2808 SWITCH
D601 MTZJ-T-77-7.5
C613 100 160V
R615 33k
T601 SRT
D606 EU1Z
D604 EU1
D605 EU1Z
D608 EU1
D609 RU4AM
D626 AU01Z
R645 2.7k
FB602 1.1
FB606 1.1
FB604
FB600 1.1
R646 0.47 :FPRB
C612 22 100V
R610 1k
R647 0.1 1/2W :RF
R634 22
R603 10k
C606 1000p 500V
C605 10 100V
R636 1k
R604 1.8k
D603 MTZJ-T-77-6.8C
IC600 STR-S6708 POWER-CONTROL
R643 3.3k
R612 6.2k
R401 1k
D612 RU3AM
R633 10
L611 15
L610 5ea
C611 470p 500V
C616 1000 25V
D611 EL1Z-V1
C615 470 25V
D613 EL1Z-V1
D610 AU01Z
C617 2200 16V
R640 0.22 3W :RS
L613 1.6
R609 5WH
C620 470p 500V B
R619 56 1W :RS
C650 2200 35V
D614 EL1Z-V1
L612 1.6
C629 2200 35V
C644 0.047 100V :MPS
R641 0.22 3W :RS
R621 56 1W :RS
C619 470p 500V B
D619 1SS133T
R624 100
Q607 JC501TP-Q SWITCH
R626 12k
C632 220 25V
R628 680
C651 22
R625 27k
D620 1SS133T
D622 MTZJ-T-77-9.1
IC605 MC7812 REGULATOR
IC606 LM2940T-9.0 REGULATOR
+12V
R648 4.7 5W
C639 0.1
C627 220 25V
C618 0.1
C614 100 25V
IC603 5V-REGMC7805CT REGULATOR
+5V
C624 0.1
C626 220 25V
IC604 TL750L05CLP REGULATOR
C621 0.1
C623 220 25V
C
GND
B
D IN
D OUT
OCP
F/B
INH
VCC
R606 CMN 12 5W
D607 EG1Z
C607 220 25V
R607 12 1W :RS
R605 0.27 2W :RS
R644 100
-21V
21V
STBY5V
5V
9V
12V
33V
ABL
D618 1SS133T
VSYNC
C503 0.1 100V :MPS
R503 10k
R502 2.2k
D500 MTZJS.1
R519 5WH
R520 33k
R521 47k
C502 470p
R527 2.4k
C513 0.22 100V :MPS
C514 0.1
C515 470 25V
+15V
+135V
T803 FBT
C824 33 160V
R834 68k
L806 5.3 LHL08
R831 5WH
C822 22 250V
D810 RGP10GPKG23
C518 470p 500V B
L502 5.3 LHL08
R510 0.47 :FPRB
C517 470 25V
D502 RGP15G-15V
C519 470p 500V B
L503 5.3 LHL08
R509 0.47 :FPRB
C520 470 25V
D503 RGP15G-15V
R829 56k
R826 1k 1/2W
R828 6.8k
C819 0.068 400V :MPS
R827 4.7k
D809 RGP02-20EL
R830 1k 1W
CN804 6P WHT
1 +1000V
2 +200V
3 GND
4 NC
5 H1
6 H2
TO C BOARD CN701
C821 0.0047 2kV
CN803 1P
1 GND
TAB (CONTACT)
CN801 6P
1 H-DRIVE
2 GND
3 GND
4 V-PIN
5 FBT-15V
6 FBT 15V
7 V-DY+
8 V-DY+
9 V-OUT
10 V-OUT
GX TUBE MODELS ONLY
JW808 5WH
CN800 6P :DY
6 V+
5 V-
4 H-
3 H-
2 H+
1 H+
D807 RGP10G
L802 10mH
C805 0.15 200V :PT
D808 GP08B
D815 GP08B
C810 2.2 250V
R818 22 2W
R821 47 2W :RS
C812 1.4 200V
L805 2.2mH
S6801
CN807 3P :S-MICRO
RIGHT
CENTRE
LEFT
H POSITION
L804 HLC
JW805 5WH
JW807 5WH
C811 820p 500V
R822 680 1W :RS
L800 3.9mH
L801 10
C807 0.82 200V
T800
Q805 BTC144ES SWITCH
R840 100
R817 1.2k 3W
R816 1.2k 3W
C829 0.47
Q803 2SC2688L H-DRIVE
R841 1.2k
C806 0.1 200V
T804 HOT
R815 0.47 1W
L803 1.9
C835 1000p 500V B
R851 1.8k 1/2W PFRB
C836 100p 500V B
C820 470p B
R820 68 1/4W
Q802 2SC4927-01 H-OUT
JW013 5WH
C814 0.017 1.4kV
D812 ERC06-15S
D813 ER06-15S
D814 ERB29-08J
C816 0.001 2kV
C817 0.001 2kV
C818 470pF 2kV
C815 0.0082 400V :MPS
R824 1.6k
D1201 MTZ-J-T-77-3.9B
Q1201 JC501 SWITCH
R1216 470
R1213 4.7k
Q1200 JC501TP-Q SWITCH
R1200 10k
R1201 27k
C1215 0.47
C1200 0.1 100V
IC1200 TBA7264 AUDIO-AMP
ROUT
21V
LOUT
-21V
GNB
C1202 0.1
C1201 0.1
C1216 2200
C1217 2200
CN1200 4P :S-MICRO
4 GND
3 L OUT
2 GND
1 R OUT
L1200 JW10ea
L1201 JW10ea
R1212 3.9k
R1211 3.9k
R1208 4.7 :RF
R1209 4.7 :RF
C1203 0.22 :MPS
C1204 0.22 :MPS
C1206 0.022
C1205 0.022
AUDIO R
AUDIO L
+5V
CN1203
FOR C8 MODELS ONLY
SP R
SP L
MUTE SW
MUTE
+12V
GND
GND
-21V



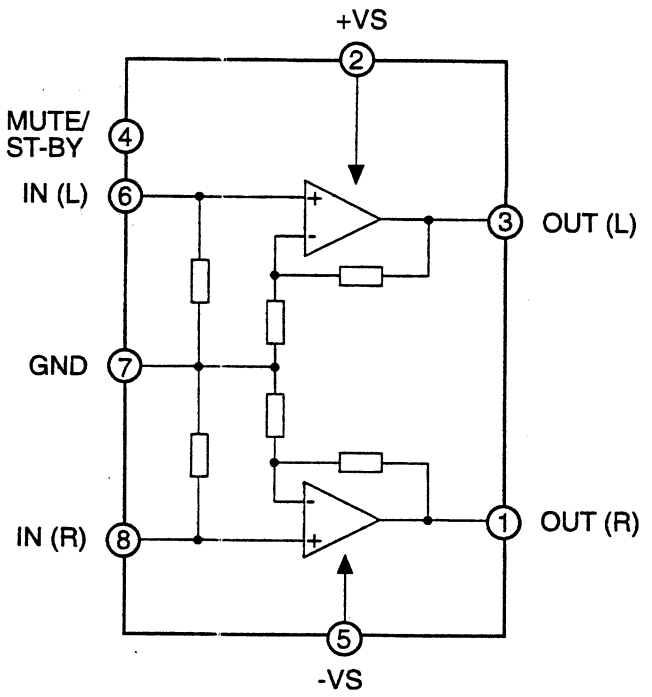
WAVEFORMS D BOARD



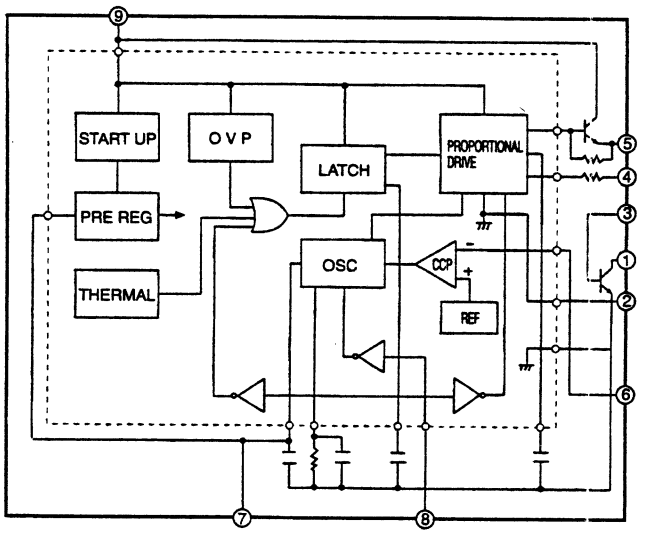
D BOARD IC500 STV9379

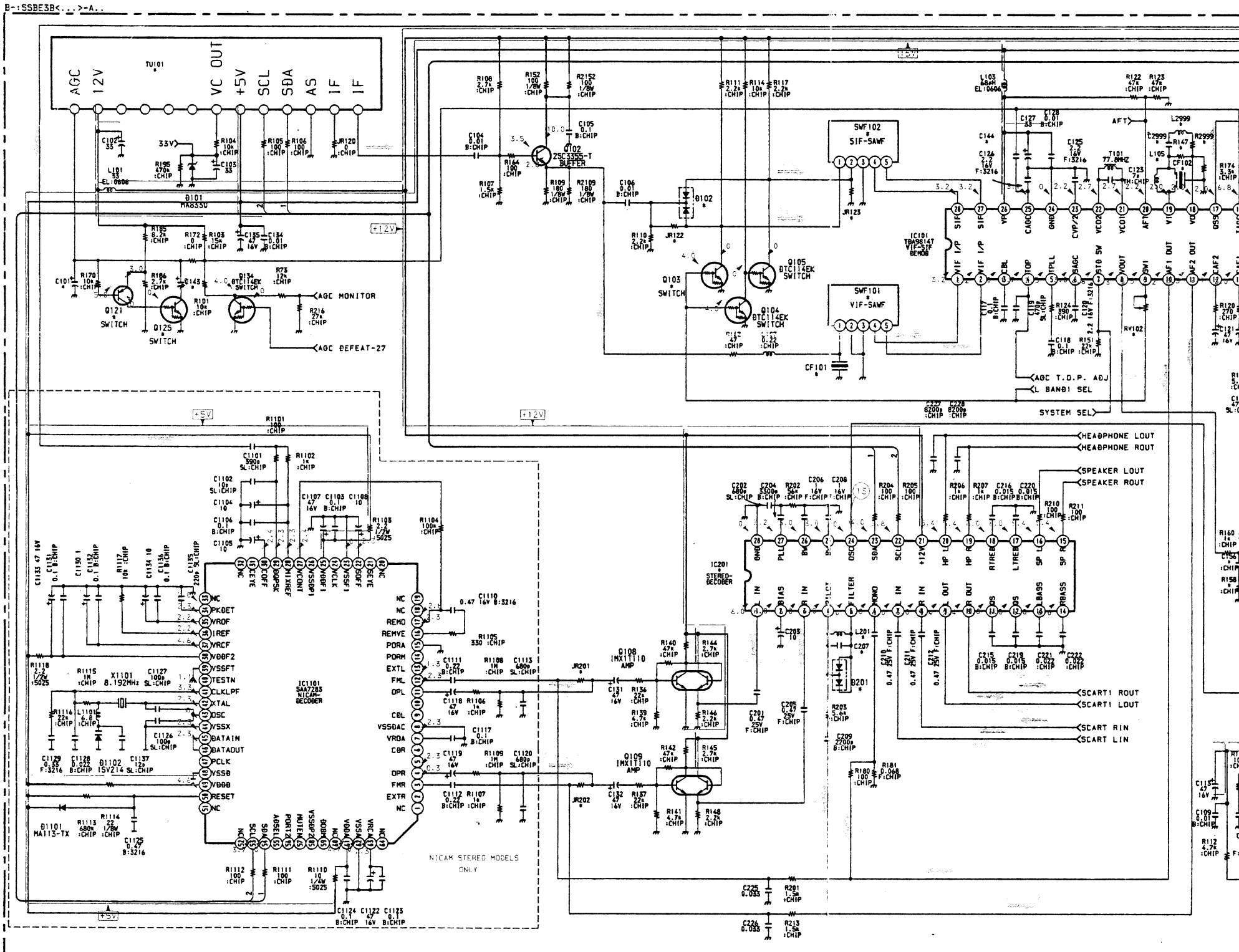


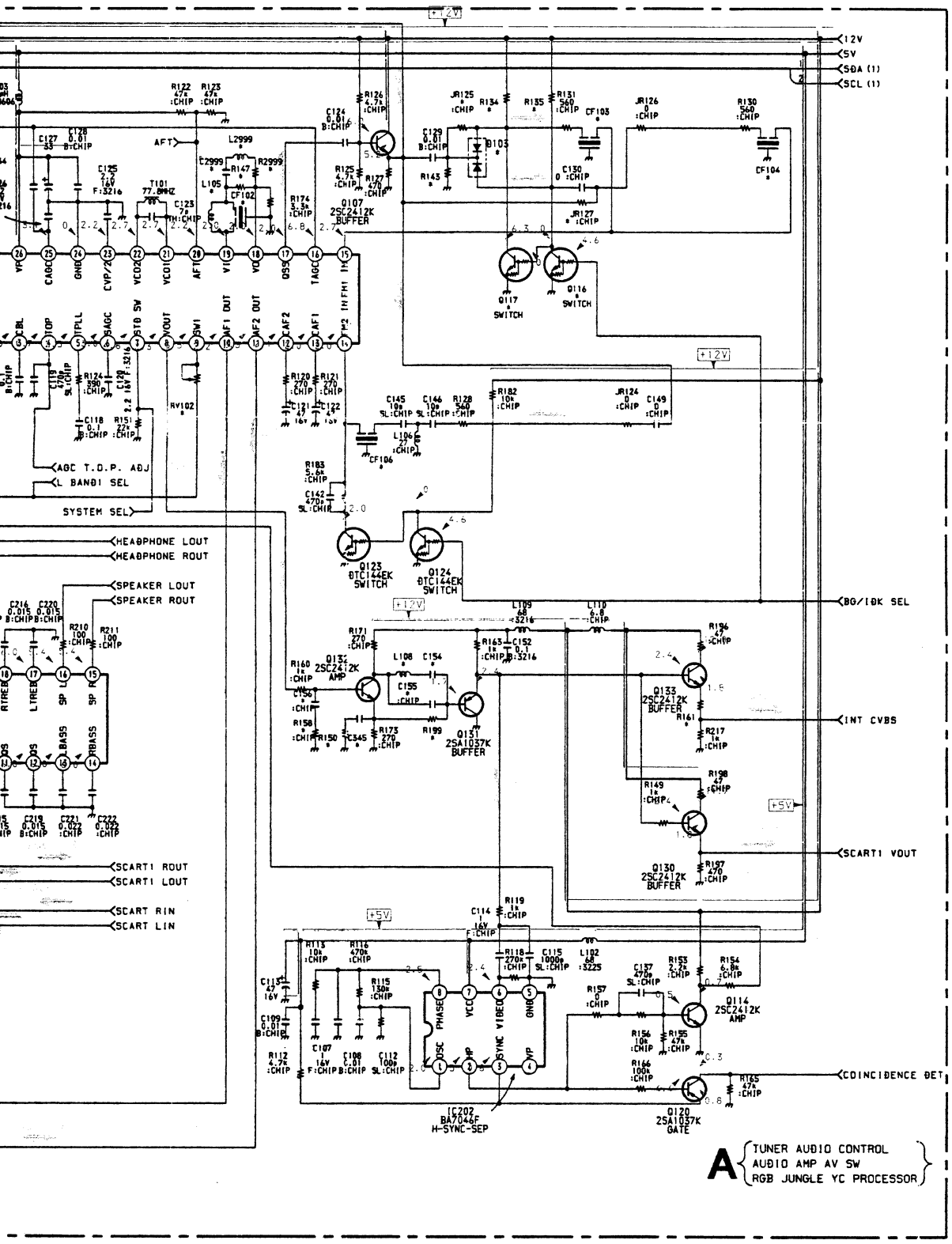
D BOARD IC1200 TDA7264

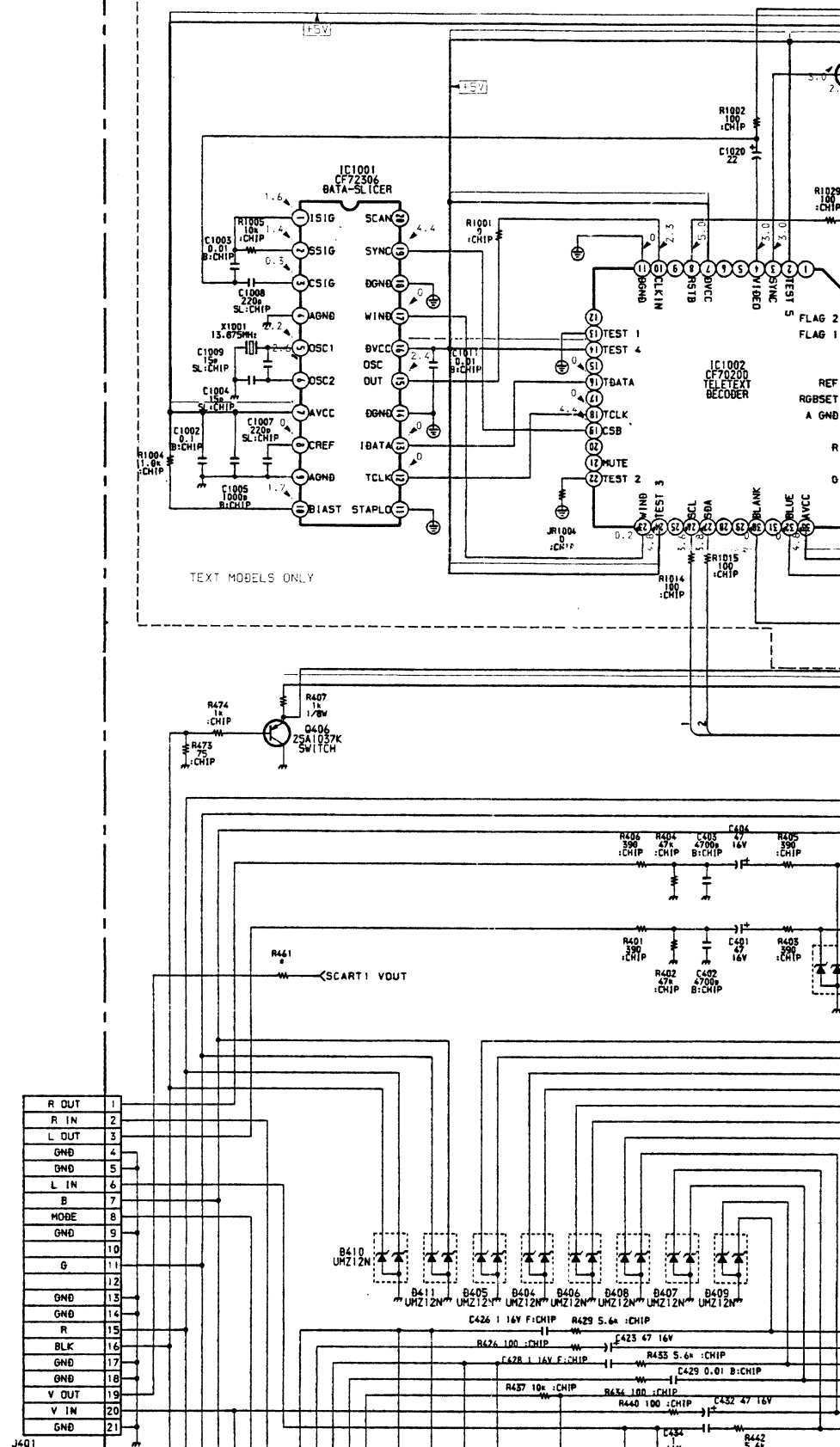


D BOARD IC600 STR-S6708




B-:SSBE3B<...>-A..
TU101
AGC
12V
VC OUT
+5V
SCL
SDA
AS
IF
IF
+12V
+5V
IC101
TDA9814T
VIF-SIF
DEMOD
SWF102
SIF-SAWF
SWF101
VIF-SAWF
Q101
MA8350
Q102
2SC3355-T
BUFFER
Q103
SWITCH
Q104
BTC114EK
SWITCH
Q105
BTC114EK
SWITCH
Q121
SWITCH
Q125
SWITCH
Q134
BTC114EK
SWITCH
AGC MONITOR
AGC DEFEAT-27
AGC T.D.P. ADJ
L BAND1 SEL
SYSTEM SEL
AFT
T101
77.8MHZ
L2999
CF102
CF101
RV102
IC1101
SAA7285
NICAM-
DECODER
X1101
8.192MHz
Q1101
MA113-TX
Q1102
1SV214
NICAM STEREO MODELS
ONLY
IC201
STEREO-
DECODER
Q108
IMX11110
AMP
Q109
IMX11110
AMP
D201
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER LOUT
SPEAKER ROUT
SCART1 ROUT
SCART1 LOUT
SCART RIN
SCART LIN

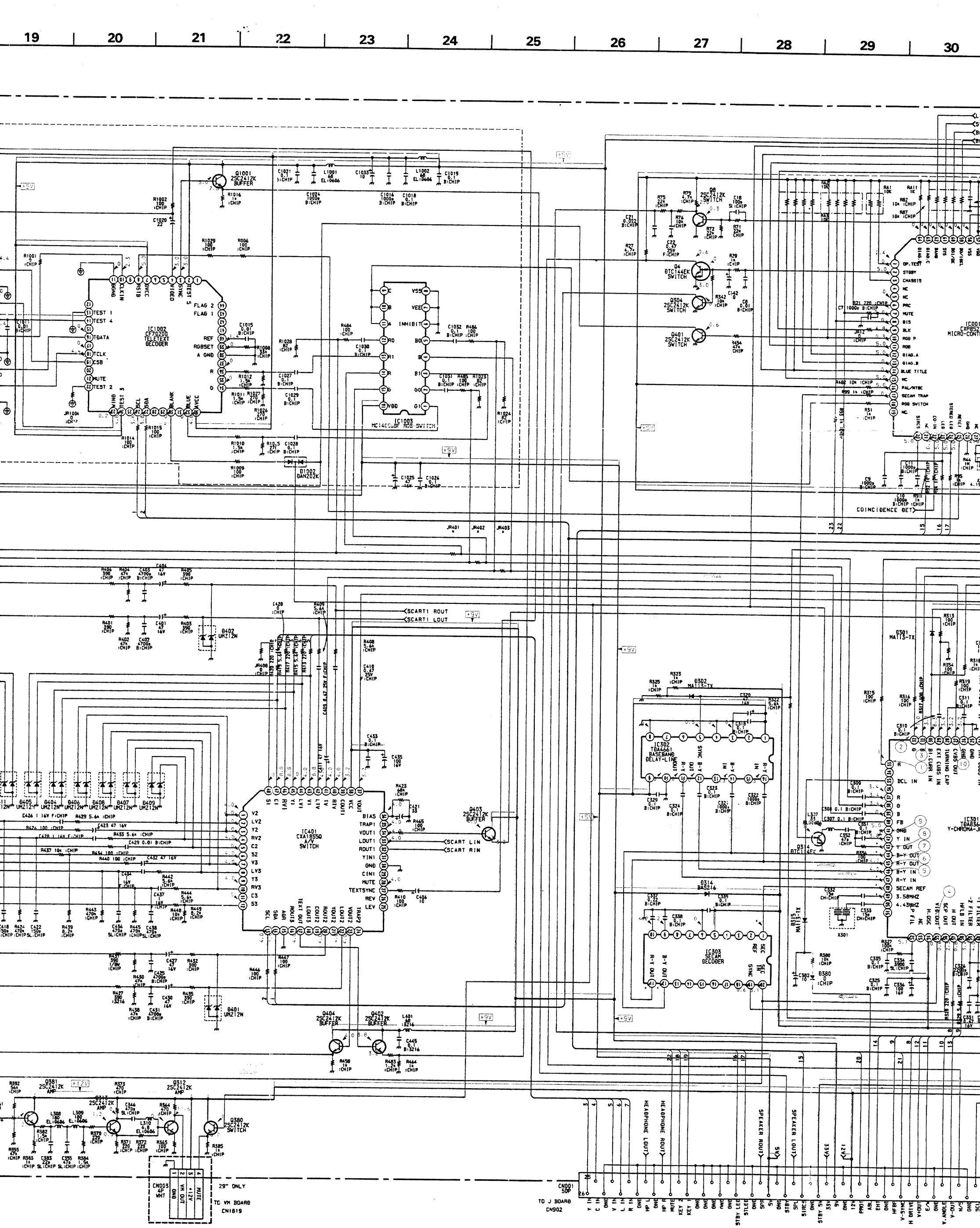


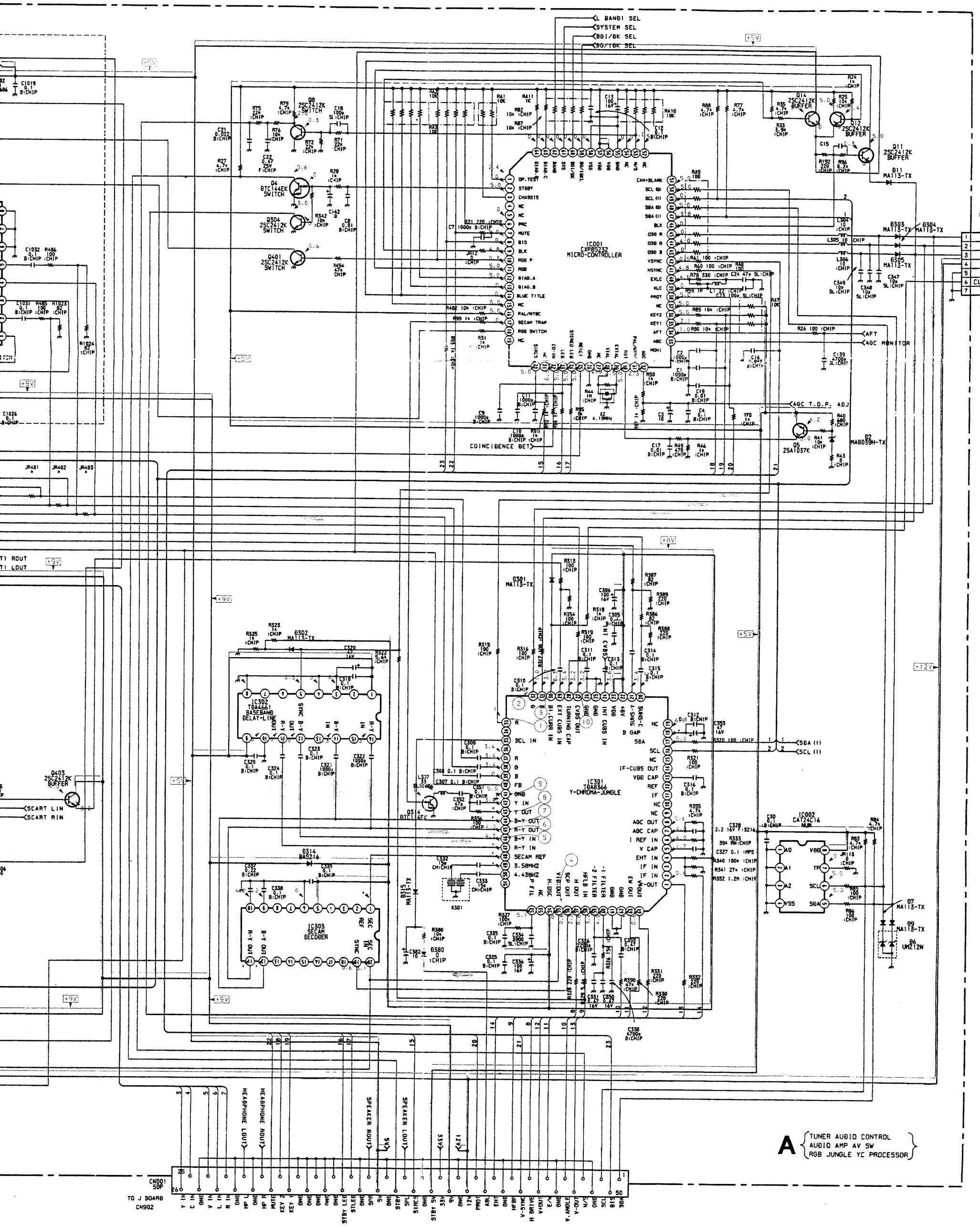


Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

A BOARD

IC	Pin	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	17	4.0	4.0	4.0	0
	35	3.6	2.5	3.5	3.5
	44	1.5	3.1	1.5	1.5
	45	1.5	3.0	1.5	1.5
	48	1.7	4.4	1.6	1.7
	49	1.4	1.4	2.0	1.4
	50	2.0	2.0	1.4	2.0
	63	3.4	2.5	2.2	2.5
IC303	1	1.7	4.4	1.6	1.7
	11	1.5	3.0	1.5	1.5
	12	1.5	3.1	1.5	1.5

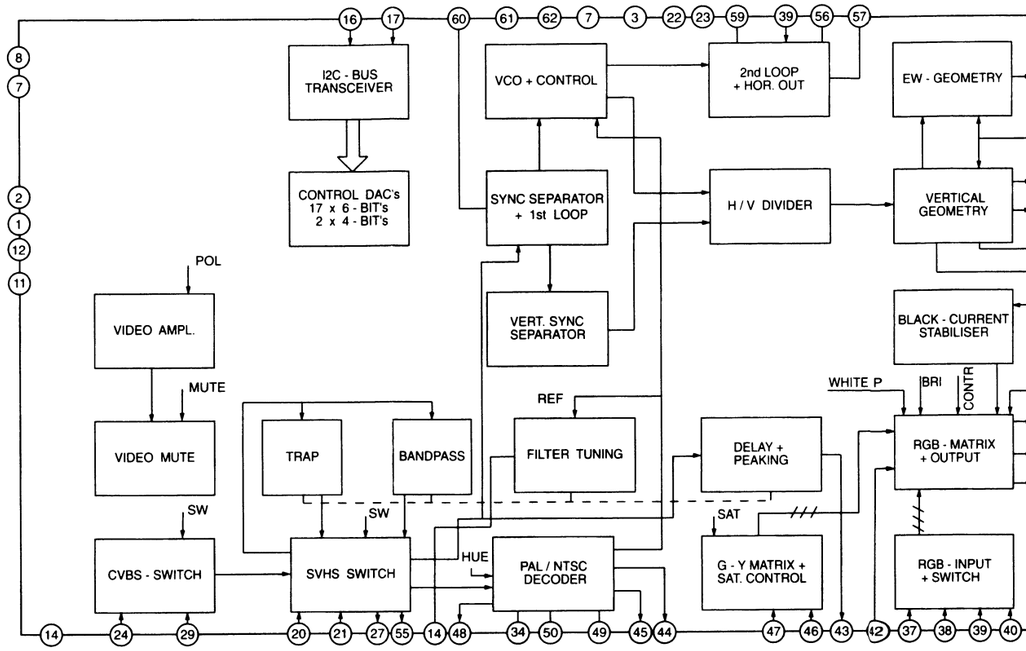

IC1002 CF7020D TELETEXT DECODER
IC1003 MC14053BF RGB SWITCH
IC401 CXA1855Q A/V SWITCH
IC302 TDA4661 BASEBAND DELAY-LINE
IC303 SECAM DECODER
IC001 CXP852 MICRO-CONT
Q1001 2SC2412K BUFFER
Q8 2SC2412K SWITCH
Q4 DTC144EK SWITCH
Q304 2SC2412K SWITCH
Q401 2SC2412K SWITCH
Q403 2SC2412K BUFFER
Q404 2SC2412K BUFFER
Q402 2SC2412K BUFFER
Q381 2SC2412K AMP
Q313 2SC2412K AMP
Q312 2SC2412K AMP
Q380 2SC2412K SWITCH
Q314 DTC114EK
D1002 DAN202K
D402 UMZ12N
D401 UMZ12N
D405 UMZ12N
D404 UMZ12N
D406 UMZ12N
D408 UMZ12N
D407 UMZ12N
D409 UMZ12N
D301 MA113-TX
D302 MA113-TX
D315 MA113-TX
D314 BAS216
D380
X501
COINCIDENCE DET
SCART1 ROUT
SCART1 LOUT
SCART LIN
SCART RIN
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER LOUT
SPEAKER ROUT
CN003 4P WHT
GND
VM OUT
+12V
MUTE
29" ONLY
TO VM BOARD
CN1819
CN001 50P
TO J BOARD
CN902
+5V
+9V
+12V


L BAND1 SEL
SYSTEM SEL
BG1/BK SEL
BG/10K SEL
IC001
CXP85232
MICRO-CONTROLLER
IC301
T0AB366
Y-CHROMA-JUNGLE
IC302
T0A4661
BASEBAND
DELAY-LINE
IC303
SECAM
DECODER
IC002
CAT24C16
NVM
CN002
7P
WHT
R
G
B
+12V
GND
CUT OFF
GND
TO C BOARD
CN703
AFT
AGC MONITOR
AGC T.D.P. ADJ
SCART L IN
SCART R IN
SDA (1)
SCL (1)
CN001
50P
TO J BOARD
CN902
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER ROUT
SPEAKER LOUT
A
TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR

A BOARD * MARK

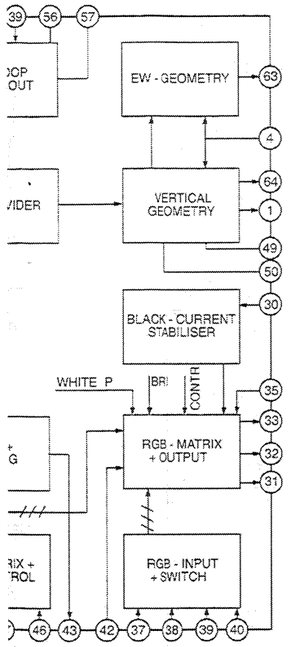
Ref	X2901D	X2901A	X2900B	X2901B	X2903E	X2902L	X2902U	X2901K
C101	22mF	22mF	4.7mF	4.7mF	22mF	22mF	22mF	22mF
C143	-	-	100mF 16V	100mF 16V	-	-	-	-
C144	-	-	1mF	1mF	-	-	-	-
C154	180pF	180pF	150pF	150pF	180pF	-	-	180pF
C155	47pF	47pF	33pF	33pF	47pF	-	-	47pF
C156	18pF	18pF	-	-	18pF	-	-	18pF
C207	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	-	-	0.0018mF 100V
CF101	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	-	-	EFCV4045A4
CF102	5.5mHz	5.5mHz	5.5mHz/6.6mHz	5.5mHz/6.6mHz	5.5mHz	6.0mHz	6.0mHz	5.5mHz
CF103	5.5mHz	5.5mHz	5.5mHz	5.5mHz	5.5mHz	-	-	5.5mHz
CF104	6.5mHz	-	6.0mHz	6.0mHz	-	SFE6.0MB	SFE6.0MB	6.5mHz
CF106	5.75mHz	5.75mHz	5.75mHz	5.75mHz	5.75mHz	-	-	5.75mHz
D102	-	-	DAN202K	DAN202K	-	-	-	-
D103	DAN202K	-	DAN202K	DAN202K	-	-	-	DAN202K
D201	DA204K	DA204K	DA204K	DA204K	DA204K	-	-	DA204K
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622	TDA6622	TDA6612
IC303	TDA8395T	-	TDA8395T	TDA8395T	-	-	-	TDA8395T
JR122	0 :CHIP	0 :CHIP	-	-	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP
JR123	0 :CHIP	0 :CHIP	-	-	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP
JR125	-	0 :CHIP	-	-	0 :CHIP	-	-	-
JR127	-	-	-	-	-	0 :CHIP	-	-
JR201	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	-	-	-	0 :CHIP
JR202	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	-	-	-	0 :CHIP
JR401	-	-	0 :CHIP	-	-	-	-	-
JR402	-	-	0 :CHIP	-	-	-	-	-
JR403	-	-	0 :CHIP	-	-	-	-	-
L105	15µH	15µH	8.2µH	8.2µH	15µH	15µH	15µH	15µH
L108	15µH	15µH	27µH	27µH	15µH	-	-	15µH
L201	4.7mmH	4.7mmH	4.7mmH	4.7mmH	4.7mmH	-	-	4.7mmH
Q103	-	-	DTC114EK	DTC114EK	-	-	-	-
Q116	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q117	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q121	-	-	2SA1037K	2SA1037K	-	-	-	-
Q125	-	-	DTC114EK	DTC114EK	-	-	-	-
R134	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R135	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R143	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R147	270	270	150	150	270	270	270	270
R158	12K	12K	-	-	12K	-	-	12K
R199	330	330	470	470	330	-	-	330
RV102	-	-	22K	22K	-	-	-	-
SWF101	K3953M	K3953M	K3953M	K3953M	K3953M	J3950M	J3950M	K3953M
SWF102	K9350M	K9350M	K9453M	K9453M	K9350M	K9350M	K9350M	K9350M
TU101	UV-916H	UV-916H	UV-916H	UV-916H	UV-916H	U-944C	U-944C	UV-916H

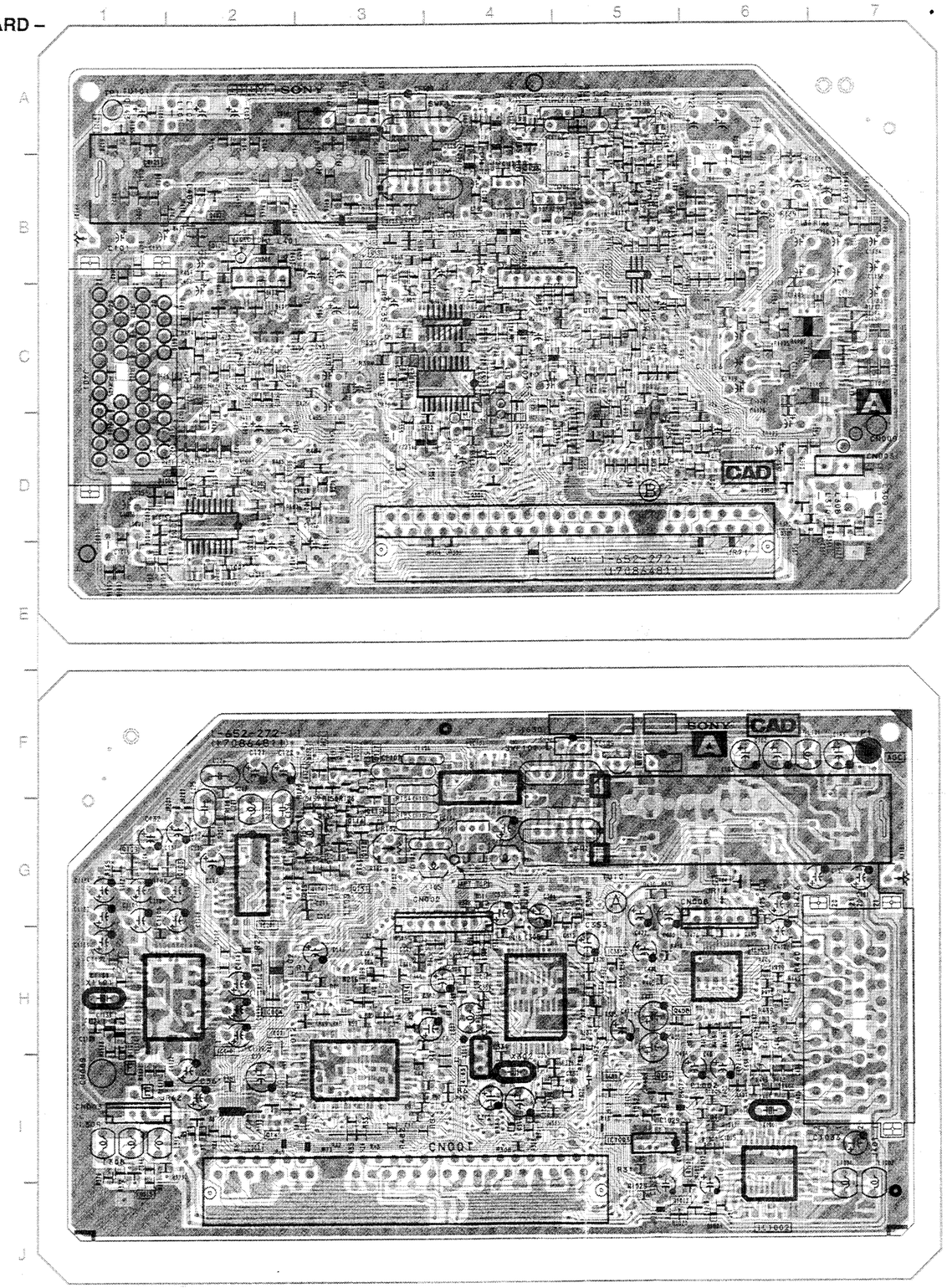
A BOARD IC301 TDA8366T



WAVEFORMS A BOARD

① 3.5 Vp-p (H)	② 3.0 Vp-p (H)	③ PAL.SECAM 2.5 Vp-p (H)	③ NTSC 2.3 Vp-p (H)	④ PA 0.1 V
④ SECAM 1.1 Vp-p (H)	④ NTSC 0.9 Vp-p (H)	⑤ 1.0 Vp-p (H)	⑥ 1.4 Vp-p (H)	⑦ PA 1.4 V
⑦ SECAM 1.1 Vp-p (H)	⑧ PAL 0.8 Vp-p (H)	⑧ SECAM 1.5 Vp-p (H)	⑧ NTSC 0.9 Vp-p (H)	⑨ PA 0.5 V
⑨ NTSC 0.4 Vp-p (H)	⑩ 1.0 Vp-p (H)			





A TUNER AUDIO CONTROL AUDIO AMP AV SW RGB JUNGLE YC PROCESSOR

– A BOARD –

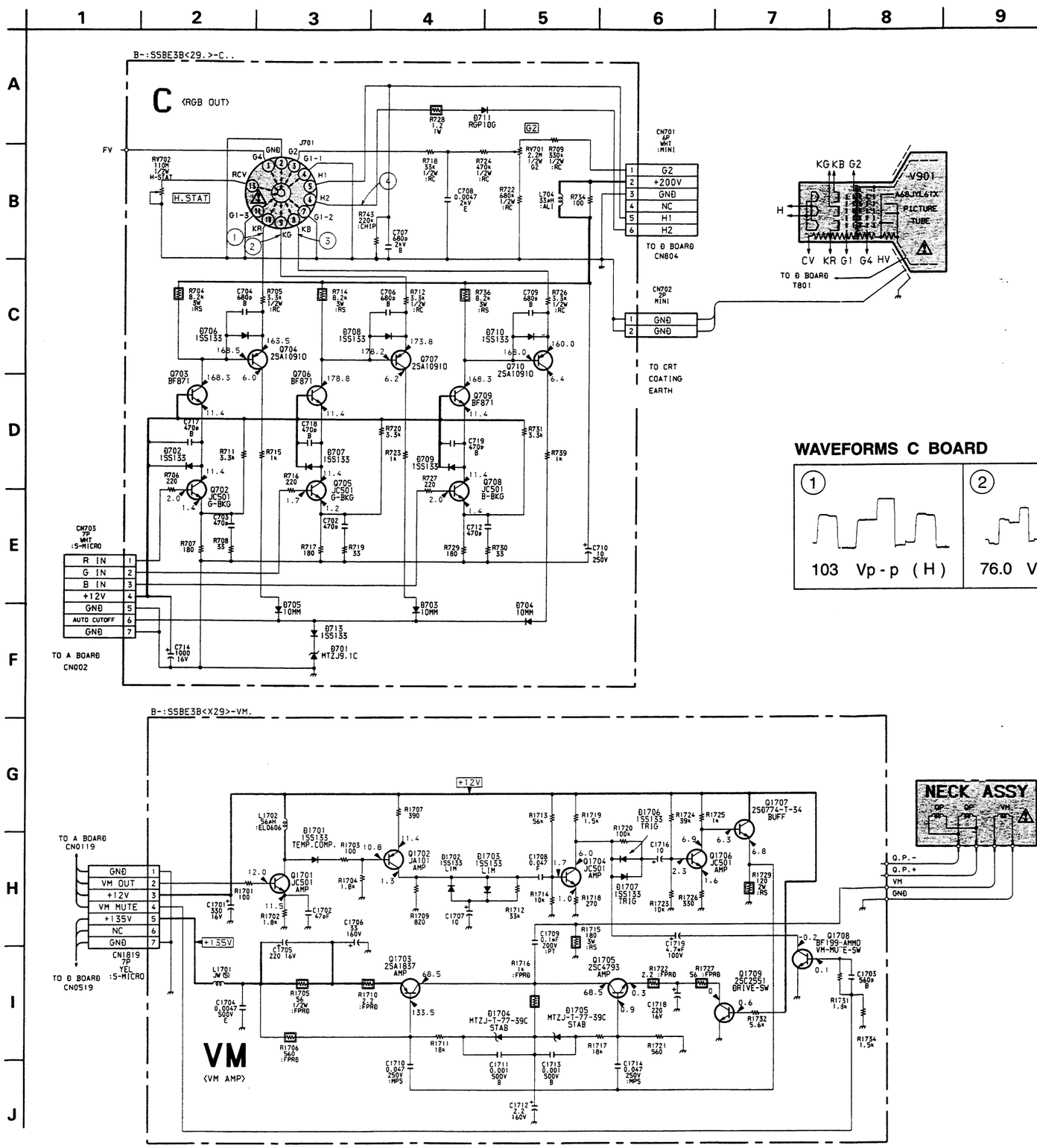
IC	
IC001	H - 2
IC002	I - 2
IC101	F - 4
IC201	G - 2
IC202	B - 5
IC301	H - 5
IC302	C - 4
IC303	C - 4
IC401	H - 6
IC1001	D - 2
IC1002	J - 6
IC1003	I - 5
IC1101	H - 2

TRANSISTOR	
Q4	D - 6
Q8	C - 5
Q11	D - 5
Q12	C - 5
Q14	I - 2
Q102	F - 5, A - 3
Q103	B - 3
Q104	B - 3
Q105	B - 3
Q107	B - 5
Q108	G - 2
Q109	G - 1
Q114	G - 3
Q116	G - 3
Q117	F - 3
Q120	C - 5
Q121	A - 1
Q123	B - 4
Q124	F - 3
Q125	B - 1
Q130	B - 3
Q131	G - 3
Q132	G - 3
Q133	B - 4
Q304	D - 4
Q312	E - 7
Q313	J - 1
Q314	C - 4
Q380	D - 6
Q381	D - 6
Q401	I - 5
Q402	B - 2
Q403	B - 3
Q404	G - 6
Q1001	I - 6
Q1003	J - 5

DIODE	
D6	I - 2
D7	I - 2
D9	I - 2
D11	D - 5
D101	B - 2
D102	B - 4
D103	A - 5
D201	B - 6
D301	G - 4
D302	C - 4
D303	H - 3
D304	B - 5
D305	C - 4
D314	B - 3
D380	I - 4
D401	C - 2
D402	C - 2
D404	C - 2
D405	C - 2
D406	C - 2
D407	C - 2
D408	C - 2
D409	C - 2
D410	C - 2
D411	D - 2
D1002	I - 6
D1003	J - 6
D1101	H - 1
D1102	C - 7

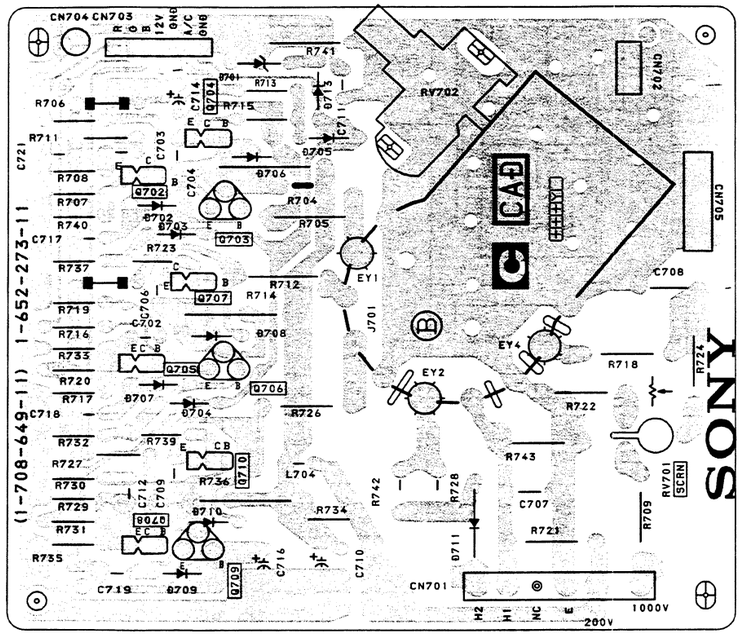
Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

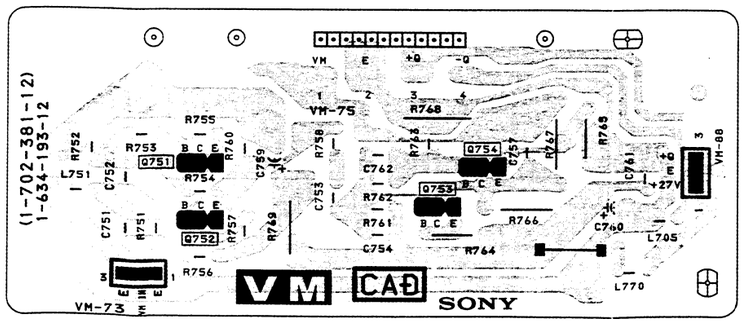

B-:SSBE3B<29.>-C..
C
<RGB OUT>
FV
J701
RV702 1.0M H-STAT
H.STAT
RCV
G4
GND
G2
G1-1
H1
H2
G1-2
G1-3
KR
KB
KG
R728 1.2 1W
D711 RGP10G
G2
R718 33k 1/2W :RC
R724 470k 1/2W :RC
C708 0.0047 2kV E
R722 680k 1/2W :RC
RV701 2.2M 1/2W G2
R709 330k 1/2W :RC
L704 33mH :ALI
R734 100
R743 220 :CHIP
C707 680p 2kV B
CN701 6P WHT :MINI
1 G2
2 +200V
3 GND
4 NC
5 H1
6 H2
TO B BOARD CN804
CN702 2P MINI
1 GND
2 GND
TO CRT COATING EARTH
KG KB G2
V901
A68JYL61X
PICTURE TUBE
H
CV KR G1 G4 HV
TO B BOARD T801
R704 8.2k 3W :RS
C704 680p B
R705 3.3k 1/2W :RC
R714 8.2k 3W :RS
C706 680p B
R712 3.3k 1/2W :RC
R736 8.2k 3W :RS
C709 680p B
R726 3.3k 1/2W :RC
D706 1SS133
Q704 2SA10910
D708 1SS133
Q707 2SA10910
D710 1SS133
Q710 2SA10910
Q703 BF871
Q706 BF871
Q709 BF871
C717 470p B
C718 470p B
C719 470p B
R720 3.3k
R731 3.3k
R739 1k
D702 1SS133
R711 3.3k
R715 1k
D707 1SS133
R723 1k
D709 1SS133
R706 220
Q702 JC501 G-BKG
R716 220
Q705 JC501 G-BKG
R727 220
Q708 JC501 B-BKG
C703 470p
C702 470p
C712 470p
R707 180
R708 33
R717 180
R719 33
R729 180
R730 33
C710 10 250V
CN703 7P WHT :S-MICRO
R IN 1
G IN 2
B IN 3
+12V 4
GND 5
AUTO CUTOFF 6
GND 7
TO A BOARD CN002
D705 10MM
D703 10MM
D704 10MM
D713 1SS133
D701 MTZJ9.1C
C714 1000 16V
WAVEFORMS C BOARD
1 103 Vp-p (H)
2 76.0 Vp-p (H)
3 100 Vp-p (H)
4 18.5 Vp-p (H)
B-:SSBE3B<X29>-VM.
+12V
TO A BOARD CN0119
GND 1
VM OUT 2
+12V 3
VM MUTE 4
+135V 5
NC 6
GND 7
CN1819 7P YEL :S-MICRO
TO B BOARD CN0519
L1702 56uH :EL0606
D1701 1SS133 TEMP.COMP.
R1703 100
Q1702 JA101 AMP
D1702 1SS133 LIM
D1703 1SS133 LIM
R1707 390
R1713 56k
R1719 1.5k
D1706 1SS133 TRIG
R1720 100k
C1716 10
R1724 39k
R1725 1k
Q1707 2S0774-T-34 BUFF
C1708 0.047 F
Q1704 JC501 AMP
D1707 1SS133 TRIG
Q1706 JC501 AMP
R1729 120 2W :RS
R1701 100
Q1701 JC501 AMP
R1702 1.8k
C1702 47pF
R1704 1.8k
R1709 820
C1707 10
R1714 10k
R1718 270
R1723 10k
R1726 330
C1706 33 160V
C1709 0.1uF 200V :PT
R1715 180 3W :RS
C1719 4.7uF 100V
Q1708 DF199-AMMO VM-MUTE-SW
+135V
C1705 220 16V
Q1703 2SA1837 AMP
R1716 1k :FPRD
Q1705 2SC4793 AMP
R1722 2.2 :FPRD
R1727 56 :FPRD
Q1709 2SC2551 DRIVE-SW
C1703 560p B
L1701 JW
R1705 56 1/2W :FPRD
R1710 2.2 :FPRD
C1704 0.0047 500V E
D1704 MTZJ-T-77-39C STAB
D1705 MTZJ-T-77-39C STAB
R1732 5.6k
R1731 1.8k
R1734 1.5k
R1706 560 :FPRD
R1711 18k
R1717 18k
R1721 560
C1710 0.047 250V :MPS
C1711 0.001 500V B
C1713 0.001 500V B
C1714 0.047 250V :MPS
C1712 2.2 160V
VM
<VM AMP>
NECK ASSY
CP CP VM
Q.P.-
Q.P.+
VM
GND

C [RGB OUT] **VM** [VM AMP]

– C BOARD –

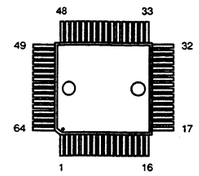


– VM BOARD –

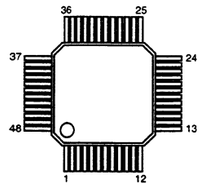


5.4 SEMICONDUCTORS

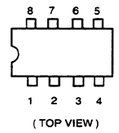
TDA8366
CF70200FN



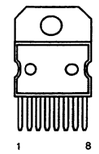
CXA1855Q
SAA7283
CXP85232



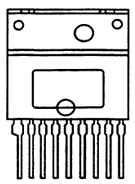
LM393
TDA7264



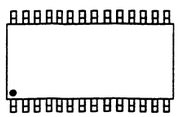
TDA7264



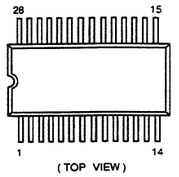
STRS6708



TDA6622



TDA9814



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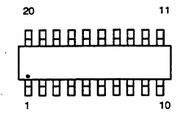

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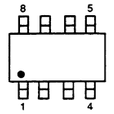

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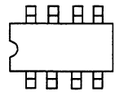

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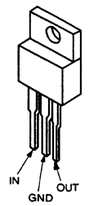
MC7805CT
LM2940T
SE135N



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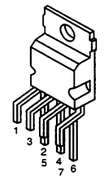
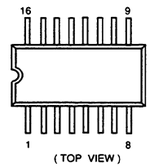
2SC2551-0
JA101
JC501TP

STV9379



TDA4661/V2



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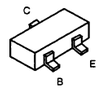

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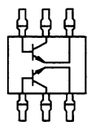

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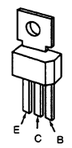

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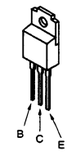

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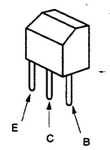

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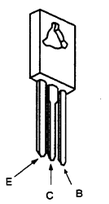

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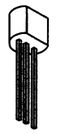

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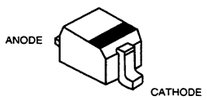

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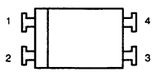

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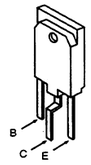

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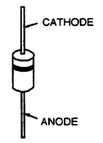
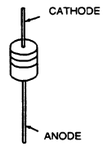
RGP15GPKG23
GP08DPKG23
RU-4AM
EL1Z
EU-1-V1
EU-1ZV1



MTZJ-9.1C
MTZJ-5.1B
MTZJ-9.1
MTZJ-3.6A
MTZJ-6.8C
MTZJ-39C
1SS133



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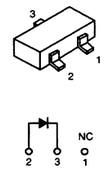

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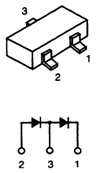

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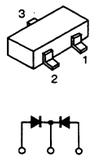

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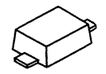
MA113



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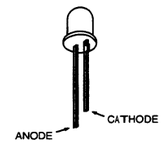


SECTION 6

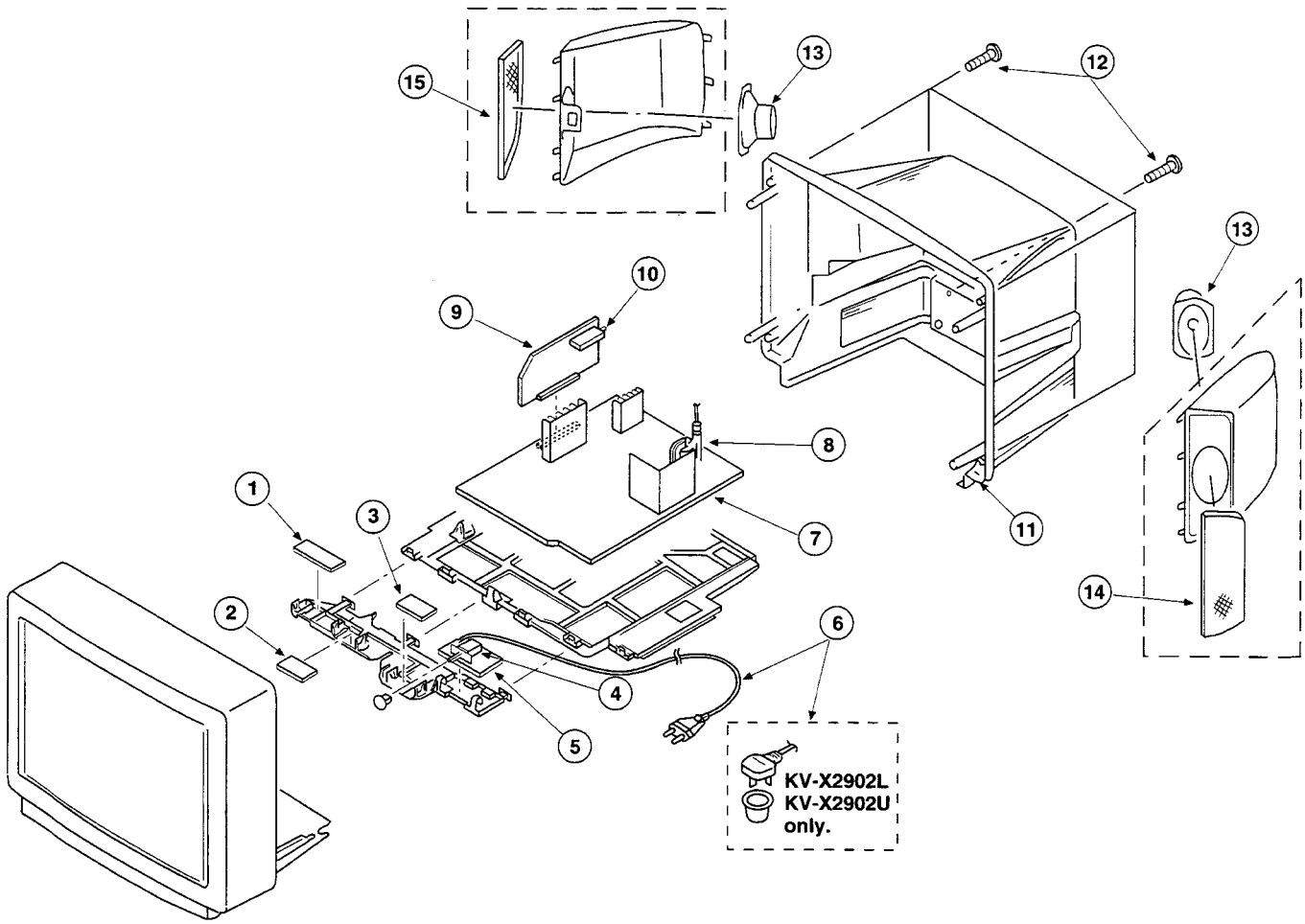
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

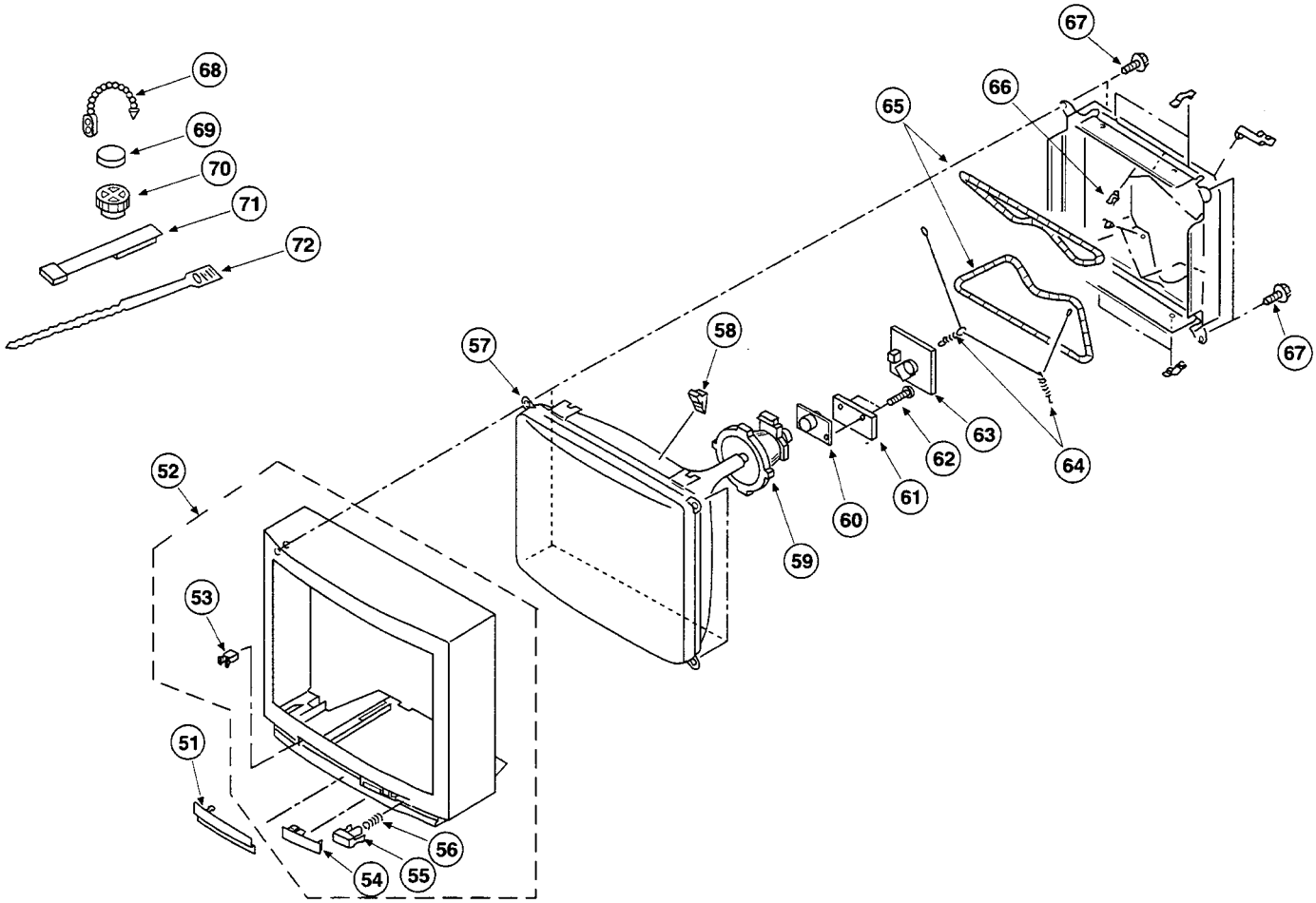
The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

6-1. CHASSIS



REF NO		PART NO	DESCRIPTION	REMARK
1		*1-652-275-11	H1 BOARD	
2		*1-652-270-11	H3 BOARD	
3		*1-652-269-11	H2 BOARD	
4	⚠	1-571-433-11	SWITCH, PUSH (AC POWER)	
5		*1-652-271-11	F1 BOARD	
6	⚠	1-751-680-11	CORD, POWER (WITH NOISE FILTER) (KV-X2901D/X2901A)	
	⚠	1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-X2900B/X2901B/X2903E/X2901K)	
	⚠	1-590-762-11	CORD, POWER (WITH PLUG) (KV-X2902U/X2902L)	
7		*A-1642-115-A	D BOARD, COMPLETE	
8	⚠	1-453-169-11	FBT ASSY (UX1604A2)	
9		*A-1632-193-A	A BOARD, COMPLETE (KV-X2901A)	
		*A-1632-196-A	A BOARD, COMPLETE (KV-X2901B)	
		*A-1632-198-A	A BOARD, COMPLETE (KV-X2900B)	
		*A-1632-174-A	A BOARD, COMPLETE (KV-X2901D)	
		*A-1632-194-A	A BOARD, COMPLETE (KV-X2903E)	
		*A-1632-197-A	A BOARD, COMPLETE (KV-X2901K)	
		*A-1632-195-A	A BOARD, COMPLETE (KV-X2902L)	
		*A-1632-199-A	A BOARD, COMPLETE (KV-X2902U)	
10		1-693-185-11	TUNER (UV916H) (KV-X2900B/X2901B /X2903E/X2901K/X2901D /X2901A/X2902L)	
		1-693-184-11	TUNER (U944C) (KV-X2902U)	
11		4-202-713-01	COVER, REAR	
12		4-039-358-01	SCREW (4x16), (+) BV TAPPING	
13		1-544-727-11	SPEAKER (7.5x13CM)	
14		X-4200-087-1	BAFFLE (R) ASSY, BOARD	
15		X-4200-088-1	BAFFLE (L) ASSY, BOARD	

6-2. PICTURE TUBE



The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF NO	PART NO	DESCRIPTION	REMARK
51	4-202-701-01	DOOR, CONTROL	
52	X-4200-157-1	BEZNET ASSY	53-56
53	4-386-710-11	CATCHER, PUSH	
54	4-202-708-01	WINDOW, ORNAMENTAL	
55	4-202-709-01	BUTTON, POWER	
56	4-329-112-51	SPRING	
57	⚠ 8-733-831-05	CRT SD-191 (A68JYL61X)	
58	3-704-495-01	SPACER, DY	
59	⚠ 8-451-313-61	DEFLECTION YOLK (Y29FXA)	
60	⚠ 1-452-509-41	NECK ASSY, CRT (NA-308)	

REF NO	PART NO	DESCRIPTION	REMARK
61	*A-1644-028-A	VM BOARD, COMPLETE	
62	4-039-357-01	SCREW (3x8), (+) BV TAPPING	
63	*A-1638-046-A	C BOARD, COMPLETE	
64	4-369-318-31	SPRING, TENSION	
65	⚠ 1-402-747-21	COIL, DEGAUSSING	
66	4-034-296-01	HOLDER, DGC	
67	4-036-188-01	SCREW (M), PT	
68	4-308-870-00	CLIP LEAD WIRE	
69	1-452-032-00	MAGNET, DISK; 10MMØ	
70	1-452-094-00	MAGNET, ROTATABLE DISK; 15MMØ	
71	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
72	3-701-007-00	BAND BINDING	

ELECTRICAL PARTS LIST

SECTION 7

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS MF : mF, PF : mmF

COILS MMH : mH, μH : mH

F1 A

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-652-271-11	F1 BOARD	
		********	
		< CONNECTOR >	
CN603	⚠ *1-580-844-11	PIN, CONNECTOR (POWER)	
CN604	⚠ *1-695-292-11	PIN, CONNECTOR (POWER)	
		< FUSE >	
F601	⚠ 1-576-232-21	FUSE (H.B.C.) 5A/250V	
	⚠ 1-533-230-11	HOLDER, FUSE; F601	
		< SWITCH >	
S601	⚠ 1-571-433-11	SWITCH, PUSH (AC POWER)	
**********			
	*A-1632-174-A	A BOARD, COMPLETE (KV-X2901D)	
		**********	
	*A-1632-193-A	A BOARD, COMPLETE (KV-X2901A)	
		**********	
	*A-1632-198-A	A BOARD, COMPLETE (KV-X2900B)	
		**********	
	*A-1632-196-A	A BOARD, COMPLETE (KV-X2901B)	
		**********	
	*A-1632-194-A	A BOARD, COMPLETE (KV-X2903E)	
		**********	
	*A-1632-199-A	A BOARD, COMPLETE (KV-X2902U)	
		**********	
	*A-1632-195-A	A BOARD, COMPLETE (KV-X2902L)	
		**********	
	*A-1632-197-A	A BOARD, COMPLETE (KV-X2901K)	
		**********	
		< CAPACITOR >	
C1	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C2	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C3	1-124-907-11	ELECT 10MF 20% 50V	
C4	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C7	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C8	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C9	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C10	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C11	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C12	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C13	1-126-101-11	ELECT 100MF 20% 16V	
C16	1-163-809-11	CERAMIC CHIP 0.047MF 10% 25V	
C17	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C19	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C21	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C22	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C23	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C24	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C30	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C101	1-124-916-11	ELECT 22MF 20% 50V (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	
	1-124-927-11	ELECT 4.7MF 20% 50V (KV-X2900B/X2901B)	
C102	1-124-917-11	ELECT 33MF 20% 50V	
C103	1-124-917-11	ELECT 33MF 20% 50V	
C104	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C105	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C106	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C107	1-164-346-11	CERAMIC CHIP 1MF 16V	
C108	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C109	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C112	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C113	1-124-477-11	ELECT 47MF 20% 16V	
C114	1-164-346-11	CERAMIC CHIP 1MF 16V	
C115	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C117	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C118	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C119	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C120	1-164-337-11	CERAMIC CHIP 2.2MF 16V	
C121	1-124-477-11	ELECT 47MF 20% 16V	
C122	1-124-477-11	ELECT 47MF 20% 16V	
C123	1-163-090-00	CERAMIC CHIP 7PF 0.25PF 50V	
C124	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C125	1-164-337-11	CERAMIC CHIP 2.2MF 16V	
C126	1-164-337-11	CERAMIC CHIP 2.2MF 16V	
C127	1-124-917-11	ELECT 33MF 20% 50V	
C128	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C129	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C130	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C131	1-124-477-11	ELECT 47MF 20% 16V	
C132	1-124-477-11	ELECT 47MF 20% 16V	
C134	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C135	1-124-477-11	ELECT 47MF 20% 16V	
C137	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C142	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	

A

REF.NO.	PART NO.	DESCRIPTION	REMARK
C143	1-126-101-11	ELECT 100MF 20% 16V (KV-X2900B/X2901B)	
C144	1-164-346-11	CERAMIC CHIP 1MF (KV-X2900B/X2901B)	16V
C145	1-163-093-00	CERAMIC CHIP 10PF 5%	50V
C146	1-163-093-00	CERAMIC CHIP 10PF 5%	50V
C149	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C150	1-124-477-11	ELECT 47MF 20%	16V
C151	1-124-477-11	ELECT 47MF 20%	16V
C152	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C154	1-163-123-00	CERAMIC CHIP 180PF 5% (KV-X2901D/X2901A/X2903E/X2901K)	50V
	1-163-121-00	CERAMIC CHIP 150PF 5% (KV-X2900B/X2901B)	50V
C155	1-163-109-00	CERAMIC CHIP 47PF 5% (KV-X2901D/X2901A/X2903E/X2901K)	50V
	1-163-105-00	CERAMIC CHIP 33PF 5% (KV-X2900B/X2901B)	50V
C156	1-163-099-00	CERAMIC CHIP 18PF 5% (KV-X2901D/X2901A/X2903E/X2901K)	50V
C201	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C202	1-163-137-00	CERAMIC CHIP 680PF 5%	50V
C203	1-124-907-11	ELECT 10MF 20%	50V
C204	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V
C205	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C206	1-164-346-11	CERAMIC CHIP 1MF	16V
C207	1-137-613-11	FILM 0.0018MF 2% (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	100V
C208	1-164-346-11	CERAMIC CHIP 1MF	16V
C209	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C210	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C211	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C212	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C215	1-163-023-00	CERAMIC CHIP 0.015MF 10%	50V
C216	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C219	1-163-023-00	CERAMIC CHIP 0.015MF 10%	50V
C220	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C221	1-163-037-11	CERAMIC CHIP 0.022MF 10%	25V
C222	1-163-037-11	CERAMIC CHIP 0.022MF 10%	25V
C225	1-130-489-00	FILM 0.033MF 5%	50V
C226	1-130-489-00	FILM 0.033MF 5%	50V
C227	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V
C228	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V
C305	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C306	1-126-101-11	ELECT 100MF 20%	16V
C307	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C308	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C309	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C310	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C311	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C312	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C313	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C314	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C315	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C316	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C318	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C320	1-124-477-11	ELECT 47MF 20%	16V
C321	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C322	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C323	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C324	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C325	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C326	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C327	1-136-165-00	FILM 0.1MF 5%	50V
C328	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C329	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C330	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C331	1-165-320-11	CERAMIC CHIP 0.47MF 10%	16V
C332	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
C333	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
C334	1-163-016-00	CERAMIC CHIP 0.0039MF 10%	50V
C335	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C336	1-126-101-11	ELECT 100MF 20%	16V
C337	1-164-489-11	CERAMIC CHIP 0.22MF 10%	16V
C338	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C339	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C342	1-124-907-11	ELECT 10MF 20%	50V
C346	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C347	1-163-093-00	CERAMIC CHIP 10PF 5%	50V
C348	1-163-093-00	CERAMIC CHIP 10PF 5%	50V
C349	1-163-093-00	CERAMIC CHIP 10PF 5%	50V
C350	1-165-320-11	CERAMIC CHIP 0.47MF 10%	16V
C351	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C352	1-163-109-00	CERAMIC CHIP 47PF 5%	50V
C353	1-124-477-11	ELECT 47MF 20%	16V
C355	1-163-109-00	CERAMIC CHIP 47PF 5%	50V
C359	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C361	1-124-907-11	ELECT 10MF 20%	50V
C382	1-124-907-11	ELECT 10MF 20%	50V
C383	1-163-101-00	CERAMIC CHIP 22PF 5%	50V
C401	1-124-477-11	ELECT 47MF 20%	16V
C402	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C403	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C404	1-124-477-11	ELECT 47MF 20%	16V
C406	1-124-907-11	ELECT 10MF 20%	50V
C409	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C410	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C411	1-124-477-11	ELECT 47MF 20%	16V
C418	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C420	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C421	1-124-917-11	ELECT 33MF 20%	50V
C422	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C423	1-124-477-11	ELECT 47MF 20%	16V
C425	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C426	1-164-346-11	CERAMIC CHIP 1MF	16V
C427	1-124-477-11	ELECT 47MF 20%	16V
C428	1-164-346-11	CERAMIC CHIP 1MF	16V
C429	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C430	1-124-477-11	ELECT 47MF 20%	16V
C431	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C432	1-124-477-11	ELECT 47MF 20%	16V
C433	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C434	1-164-346-11	CERAMIC CHIP 1MF	16V
C435	1-126-101-11	ELECT 100MF 20%	16V
C436	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C437	1-164-346-11	CERAMIC CHIP 1MF	16V
C438	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C445	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V

REF.NO.	PART NO.	DESCRIPTION		REMARK
		< C1002 - C1033 FITTED ON > <KV-X2901D/X2901A/X2901B/X2903E> <X2902U/X2902L/X2901K>		
C1002	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1003	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1004	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1005	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1007	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C1008	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C1009	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1011	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1013	1-164-346-11	CERAMIC CHIP 1MF		16V
C1015	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1016	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1018	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1019	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1020	1-124-916-11	ELECT 22MF	20%	50V
C1021	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1024	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1025	1-124-477-11	ELECT 47MF	20%	16V
C1026	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1027	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1028	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1029	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1030	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1031	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1032	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1033	1-124-907-11	ELECT 10MF	20%	50V
		< C1101 - C1137 FITTED ON > <KV-X2903E/X2902U/X2902L>		
C1101	1-163-131-00	CERAMIC CHIP 390PF	5%	50V
C1102	1-163-093-00	CERAMIC CHIP 10PF	5%	50V
C1103	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1104	1-124-907-11	ELECT 10MF	20%	50V
C1105	1-124-907-11	ELECT 10MF	20%	50V
C1106	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1107	1-124-477-11	ELECT 47MF	20%	16V
C1108	1-124-907-11	ELECT 10MF	20%	50V
C1110	1-165-320-11	CERAMIC CHIP 0.47MF	10%	16V
C1111	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V
C1112	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V
C1113	1-163-137-00	CERAMIC CHIP 680PF	5%	50V
C1117	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1118	1-124-477-11	ELECT 47MF	20%	16V
C1119	1-124-477-11	ELECT 47MF	20%	16V
C1120	1-163-137-00	CERAMIC CHIP 680PF	5%	50V
C1122	1-124-477-11	ELECT 47MF	20%	16V
C1123	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1124	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1125	1-165-320-11	CERAMIC CHIP 0.47MF	10%	16V
C1126	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C1127	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C1128	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C1129	1-162-568-11	CERAMIC CHIP 0.33MF		25V
C1130	1-124-903-11	ELECT 1MF	20%	50V
C1131	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1132	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1133	1-124-477-11	ELECT 47MF	20%	16V
C1134	1-124-907-11	ELECT 10MF	20%	50V
C1135	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C1136	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1137	1-163-095-00	CERAMIC CHIP 12PF	5%	50V
		< FILTER >		
CF101	0-550-400-00	EFCV 4045 A4 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)		
CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ) (KV-X2901D/X2901A/X2903E/X2901K)		
	1-409-430-11	TRAP, CERAMIC (KV-X2900B/X2901B)		
	1-409-333-00	TRAP, CERAMIC (6.0MHZ) (KV-X2902U/X2902L)		
CF103	0-550-808-10	SFE 5.5 MC2 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)		
CF104	1-567-101-11	FILTER, CERAMIC (KV-X2901D/X2901K)		
	1-567-100-00	FILTER, CERAMIC (KV-X2900B/X2901B)		
CF106	0-550-809-10	SFE 5.75 MC2 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)		
SWF101	1-579-273-11	FILTER, SURFACE WAVE		
SWF102	1-760-329-11	FILTER, SURFACE WAVE (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)		
	1-760-244-11	FILTER, SURFACE WAVE (KV-X2900B/X2901B)		
		< CONNECTOR >		
CN001	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P		
CN002	*1-568-882-51	PIN, CONNECTOR 7P		
CN003	*1-568-879-11	PIN, CONNECTOR 4P		
		< DIODE >		
D2	8-719-421-24	DIODE MA8039-H		
D6	8-719-047-41	DIODE UMZ12N-T146		
D7	8-719-041-97	DIODE MA113-TX		
D9	8-719-041-97	DIODE MA113-TX		
D11	8-719-041-97	DIODE MA113-TX		
D101	8-719-977-81	DIODE DTZ338		
D102	8-719-914-43	DIODE DAN202K-T-147 (KV-X2900B/X2901B)		
D103	8-719-914-43	DIODE DAN202K-T-147 (KV-X2901D/X2900B/X2901B/X2901K)		
D201	8-719-800-76	DIODE DA204K-T-147 (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)		
D301	8-719-041-97	DIODE MA113-TX		
D302	8-719-041-97	DIODE MA113-TX		
D303	8-719-041-97	DIODE MA113-TX		
D304	8-719-041-97	DIODE MA113-TX		
D305	8-719-041-97	DIODE MA113-TX		
D314	8-719-047-16	DIODE BAS216		
D380	8-719-041-97	DIODE MA113-TX		
D401	8-719-047-41	DIODE UMZ12N-T146		
D402	8-719-047-41	DIODE UMZ12N-T146		
D404	8-719-047-41	DIODE UMZ12N-T146		
D405	8-719-047-41	DIODE UMZ12N-T146		

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D406	8-719-047-41	DIODE UMZ12N-T146	
D407	8-719-047-41	DIODE UMZ12N-T146	
D408	8-719-047-41	DIODE UMZ12N-T146	
D409	8-719-047-41	DIODE UMZ12N-T146	
D410	8-719-047-41	DIODE UMZ12N-T146	
D411	8-719-047-41	DIODE UMZ12N-T146	
D1002	8-719-023-25	DIODE MA704WK (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
D1003	8-719-976-84	DIODE DTZ3.6A (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
D1101	8-719-041-97	DIODE MA113-TX (KV-X2903E/X2902U/X2902L)	
D1102	8-719-820-71	DIODE 1SV214 (KV-X2903E/X2902U/X2902L)	
		< IC >	
IC001	8-752-851-53	IC CXP85232-SV4839	
IC002	8-759-252-11	IC CAT24C16J-TE13	
IC101	8-759-193-14	IC TDA9814T	
IC201	8-759-252-14	IC TDA6612-X-GEG (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
	8-759-252-12	IC TDA6622-X-GEG (KV-X2902U/X2902L)	
IC202	8-759-514-57	IC BA7046F	
IC301	8-759-251-57	IC TDA8366T	
IC302	8-759-086-97	IC TDA4661T/V2	
IC303	8-759-251-56	IC TDA8395T (KV-X2901D/X2900B/X2901B/X2901K)	
IC401	8-752-069-53	IC CXA1855Q-T6	
IC1001	8-759-252-08	IC CF72306DW-R (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
IC1002	8-759-252-10	IC CF70200FN-R (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
IC1003	8-759-300-71	IC HD14053BFP (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
IC1101	8-759-251-58	IC SAA7283T (KV-X2903E/X2902U/X2902L)	
		< SOCKET >	
J401	1-766-296-11	CONNECTOR, DUAL SCART	
		< COIL >	
L1	1-412-010-41	INDUCTOR CHIP 22UH	
L101	1-408-609-41	INDUCTOR 33UH	
L102	1-410-214-31	INDUCTOR CHIP 68UH	
L103	1-408-419-00	INDUCTOR 68UH	
L105	1-412-008-11	INDUCTOR CHIP 15UH (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	
	1-412-005-11	INDUCTOR CHIP 8.2UH (KV-X2900B/X2901B)	
L106	1-412-011-31	INDUCTOR CHIP 27UH	
L107	1-410-985-11	INDUCTOR CHIP 0.22UH	
L108	1-412-008-11	INDUCTOR CHIP 15UH (KV-X2901D/X2901A/X2903E/X2901K)	
	1-412-011-31	INDUCTOR CHIP 27UH (KV-X2900B/X2901B)	
L109	1-410-214-31	INDUCTOR CHIP 68UH	
L110	1-412-004-31	INDUCTOR CHIP 6.8UH	
L201	1-410-067-21	INDUCTOR 4.7MMH (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2901K)	
L304	1-412-006-31	INDUCTOR CHIP 10UH	
L305	1-412-006-31	INDUCTOR CHIP 10UH	
L306	1-412-006-31	INDUCTOR CHIP 10UH	
L307	1-408-609-41	INDUCTOR 33UH	
L308	1-408-424-00	INDUCTOR 180UH	
L309	1-408-424-00	INDUCTOR 180UH	
L310	1-408-407-00	INDUCTOR 6.8UH	
L401	1-410-214-31	INDUCTOR CHIP 68UH	
L1001	1-408-419-00	INDUCTOR 68UH (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
L1002	1-408-419-00	INDUCTOR 68UH (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
L1101	1-412-004-31	INDUCTOR CHIP 6.8UH (KV-X2903E/X2902U/X2902L)	
T101	1-403-686-21	COIL	
		< TRANSISITOR >	
Q4	8-729-901-01	TRANSISTOR DTC144EK	
Q5	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q11	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q12	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q14	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q102	8-729-104-80	TRANSISTOR 2SC3355	
Q103	8-729-900-53	TRANSISTOR DTC114EK (KV-X2900B/X2901B)	
Q104	8-729-900-53	TRANSISTOR DTC114EK	
Q105	8-729-900-53	TRANSISTOR DTC114EK	
Q107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q108	8-729-907-26	TRANSISTOR IMX1	
Q109	8-729-907-26	TRANSISTOR IMX1	
Q114	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q116	8-729-901-01	TRANSISTOR DTC144EK (KV-X2901D/X2900B/X2901B/X2901K)	
Q117	8-729-901-01	TRANSISTOR DTC144EK (KV-X2901D/X2900B/X2901B/X2901K)	
Q120	8-729-216-22	TRANSISTOR 2SA1162-G	
Q121	8-729-216-22	TRANSISTOR 2SA1162-G (KV-X2900B/X2901B)	
Q123	8-729-901-01	TRANSISTOR DTC144EK	
Q124	8-729-901-01	TRANSISTOR DTC144EK	
Q125	8-729-900-53	TRANSISTOR DTC114EK (KV-X2900B/X2901B)	
Q130	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q131	8-729-216-22	TRANSISTOR 2SA1162-G	
Q132	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q133	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q313	8-729-920-74	TRANSISTOR 2SC2412K-QR	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q314	8-729-900-53	TRANSISTOR DTC114EK	
Q380	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q381	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1001	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
Q1003	8-729-216-22	TRANSISTOR 2SA1162-G (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
		< RESISTOR >	
JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR10	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR12	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR13	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR14	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR15	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR17	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR20	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR22	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR25	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR28	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR53	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR54	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR55	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR56	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR57	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR58	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR59	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR60	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR61	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR62	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR63	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR64	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR65	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR66	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR67	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR68	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR69	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR70	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR71	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR72	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR73	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR74	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR113	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR120	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR122	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	
JR123	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)	
JR124	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR125	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901A/X2903E)	
JR126	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR127	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2902L)	
JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2900B/X2901B X2901K)	
JR202	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2900B/X2901B X2901K)	
JR401	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2900B)	
JR402	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2900B)	
JR403	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2900B)	
JR408	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR1004	1-216-295-00	METAL GLAZE 0 5% 1/10W (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)	
R21	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R24	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R25	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R26	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R27	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R29	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R31	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R33	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R35	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R40	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R41	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R43	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R44	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R46	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R49	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R50	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R59	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R60	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R61	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R70	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R71	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R72	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R73	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R75	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R76	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R77	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R78	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R79	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R82	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R83	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R84	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R85	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R86	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R87	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R88	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R89	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R90	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R91	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R92	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R93	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R94	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R95	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R96	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R97	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R99	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R101	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R102	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R103	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R104	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R105	1-216-025-00	METAL GLAZE	100	5%	1/10W
R106	1-216-025-00	METAL GLAZE	100	5%	1/10W
R107	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R108	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R109	1-216-176-00	METAL GLAZE	120	5%	1/8W
R110	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R111	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R112	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R113	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R115	1-218-755-11	METAL CHIP	130K	0.50%	1/10W
R116	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R117	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R118	1-216-107-00	METAL GLAZE	270K	5%	1/10W
R119	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R120	1-216-037-00	METAL GLAZE	330	5%	1/10W
R121	1-216-037-00	METAL GLAZE	330	5%	1/10W
R122	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R123	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R124	1-216-039-00	METAL GLAZE	390	5%	1/10W
R125	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R126	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R127	1-216-041-00	METAL GLAZE	470	5%	1/10W
R128	1-216-043-00	METAL GLAZE	560	5%	1/10W
R130	1-216-043-00	METAL GLAZE	560	5%	1/10W
R131	1-216-043-00	METAL GLAZE	560	5%	1/10W
R134	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
		(KV-X2901D/X2900B/X2901B/X2901K)			
R135	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
		(KV-X2901D/X2900B/X2901B/X2901K)			
R136	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R137	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R139	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R140	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R141	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R142	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R143	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
		(KV-X2901D/X2900B/X2901B/X2901K)			
R144	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R145	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R146	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R147	1-216-035-00	METAL GLAZE	270	5%	1/10W
		(KV-X2901D/X2901A/X2903E/X2902U X2902L/X2901K)			
	1-216-029-00	METAL GLAZE	150	5%	1/10W
		(KV-X2900B/X2901B)			
R148	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R149	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R151	1-216-081-00	METAL GLAZE	22K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R152	1-216-023-00	METAL GLAZE	82	5%	1/10W
R153	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R154	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R155	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R156	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R157	1-216-295-00	METAL GLAZE	0	5%	1/10W
R158	1-216-075-00	METAL GLAZE	12K	5%	1/10W
		(KV-X2901D/X2901A/X2903E/X2901K)			
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R161	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R162	1-216-017-00	METAL GLAZE	47	5%	1/10W
R163	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R164	1-216-025-00	METAL GLAZE	100	5%	1/10W
R165	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R166	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R170	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R171	1-216-035-00	METAL GLAZE	270	5%	1/10W
R172	1-216-295-00	METAL GLAZE	0	5%	1/10W
R173	1-216-035-00	METAL GLAZE	270	5%	1/10W
R174	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R180	1-216-295-00	METAL GLAZE	0	5%	1/10W
R182	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R183	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R185	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R186	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R192	1-216-033-00	METAL GLAZE	220	5%	1/10W
R195	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R196	1-216-013-00	METAL GLAZE	33	5%	1/10W
R197	1-216-037-00	METAL GLAZE	330	5%	1/10W
R198	1-216-017-00	METAL GLAZE	47	5%	1/10W
R199	1-216-037-00	METAL GLAZE	330	5%	1/10W
		(KV-X2901D/X2901A/X2903E/X2901K)			
	1-216-041-00	METAL GLAZE	470	5%	1/10W
		(KV-X2900B/X2901B)			
R201	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R202	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R203	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R204	1-216-025-00	METAL GLAZE	100	5%	1/10W
R205	1-216-025-00	METAL GLAZE	100	5%	1/10W
R206	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R207	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R210	1-216-025-00	METAL GLAZE	100	5%	1/10W
R211	1-216-025-00	METAL GLAZE	100	5%	1/10W
R213	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R313	1-216-025-00	METAL GLAZE	100	5%	1/10W
R314	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R315	1-216-025-00	METAL GLAZE	100	5%	1/10W
R316	1-216-025-00	METAL GLAZE	100	5%	1/10W
R317	1-216-025-00	METAL GLAZE	100	5%	1/10W
R318	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R319	1-216-025-00	METAL GLAZE	100	5%	1/10W
R320	1-216-025-00	METAL GLAZE	100	5%	1/10W
R321	1-216-025-00	METAL GLAZE	100	5%	1/10W
R322	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R323	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R325	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R326	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R327	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R328	1-216-295-00	METAL GLAZE	0	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R329	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R330	1-216-295-00	METAL GLAZE	0	5%	1/10W
R331	1-216-295-00	METAL GLAZE	0	5%	1/10W
R332	1-216-295-00	METAL GLAZE	0	5%	1/10W
R333	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R340	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R341	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R342	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R352	1-216-123-11	METAL GLAZE	1.2M	5%	1/10W
R354	1-216-025-00	METAL GLAZE	100	5%	1/10W
R355	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R356	1-216-025-00	METAL GLAZE	100	5%	1/10W
R364	1-216-041-00	METAL GLAZE	470	5%	1/10W
R365	1-216-025-00	METAL GLAZE	100	5%	1/10W
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W
R371	1-216-033-00	METAL GLAZE	220	5%	1/10W
R372	1-216-033-00	METAL GLAZE	220	5%	1/10W
R373	1-216-041-00	METAL GLAZE	470	5%	1/10W
R380	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R381	1-216-025-00	METAL GLAZE	100	5%	1/10W
R382	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R383	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R384	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R385	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R386	1-216-023-00	METAL GLAZE	82	5%	1/10W
R387	1-216-023-00	METAL GLAZE	82	5%	1/10W
R388	1-216-033-00	METAL GLAZE	220	5%	1/10W
R389	1-216-033-00	METAL GLAZE	220	5%	1/10W
R390	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R392	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R393	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R401	1-216-039-00	METAL GLAZE	390	5%	1/10W
R402	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R403	1-216-039-00	METAL GLAZE	390	5%	1/10W
R404	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R405	1-216-039-00	METAL GLAZE	390	5%	1/10W
R406	1-216-039-00	METAL GLAZE	390	5%	1/10W
R408	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R409	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R410	1-216-025-00	METAL GLAZE	100	5%	1/10W
R413	1-216-033-00	METAL GLAZE	220	5%	1/10W
R415	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R417	1-216-033-00	METAL GLAZE	220	5%	1/10W
R419	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R420	1-216-009-00	METAL GLAZE	22	5%	1/10W
R421	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R422	1-216-022-00	METAL GLAZE	75	5%	1/10W
R423	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R424	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R425	1-216-022-00	METAL GLAZE	75	5%	1/10W
R426	1-216-025-00	METAL GLAZE	100	5%	1/10W
R427	1-216-188-00	METAL GLAZE	390	5%	1/8W
R429	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R430	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R431	1-216-188-00	METAL GLAZE	390	5%	1/8W
R432	1-216-039-00	METAL GLAZE	390	5%	1/10W
R433	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R434	1-216-025-00	METAL GLAZE	100	5%	1/10W
R435	1-216-039-00	METAL GLAZE	390	5%	1/10W
R436	1-216-022-00	METAL GLAZE	75	5%	1/10W
R437	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R438	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R439	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R440	1-216-025-00	METAL GLAZE	100	5%	1/10W
R441	1-216-022-00	METAL GLAZE	75	5%	1/10W
R442	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R443	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R444	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R445	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R446	1-216-025-00	METAL GLAZE	100	5%	1/10W
R447	1-216-025-00	METAL GLAZE	100	5%	1/10W
R448	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R449	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R454	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R458	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R461	1-216-022-00	METAL GLAZE	75	5%	1/10W
R464	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R465	1-216-025-00	METAL GLAZE	100	5%	1/10W
R466	1-216-041-00	METAL GLAZE	470	5%	1/10W
R473	1-216-022-00	METAL GLAZE	75	5%	1/10W
R474	1-216-009-00	METAL GLAZE	22	5%	1/10W
R482	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R483	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W

< R1001 - R1028 FITTED ON >
<KV-X2901D/X2901A/X2901B/X2903E>
<X2902U/X2902L/X2901K>

R1001	1-216-295-00	METAL GLAZE	0	5%	1/10W
R1002	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1004	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1005	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1008	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R1009	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1010	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R1011	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R1012	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R1014	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1015	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1016	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1019	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1020	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R1021	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1023	1-216-023-00	METAL GLAZE	82	5%	1/10W
R1024	1-216-023-00	METAL GLAZE	82	5%	1/10W
R1025	1-216-035-00	METAL GLAZE	270	5%	1/10W
R1026	1-216-035-00	METAL GLAZE	270	5%	1/10W
R1027	1-216-035-00	METAL GLAZE	270	5%	1/10W
R1028	1-216-023-00	METAL GLAZE	82	5%	1/10W

< R1101 - R1118 FITTED ON >
<KV-X2903E/X2902U/X2902L>

R1101	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1102	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1103	1-220-149-11	METAL GLAZE	2.2	10%	1/2W
R1104	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R1105	1-216-037-00	METAL GLAZE	330	5%	1/10W
R1106	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1107	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1108	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R1109	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R1110	1-220-238-11	METAL GLAZE	10	5%	1/4W

components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

A C

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1111	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1112	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1113	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R1114	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R1115	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1116	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1118	1-220-149-11	METAL GLAZE	2.2	10%	1/2W	
		< VARIABLE RESISTOR >				
RV102	1-241-765-11	RES, ADJ, CARBON 22K (KV-X2900B/X2901B)				
		< RESISTOR NETWORK >				
RA1	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)				
RA2	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)				
RA3	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)				
RA7	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)				
RA8	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)				
RA9	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)				
RA10	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)				
RA11	1-236-904-11	RESISTOR, NETWORK (CHIP TYPE)				
		< TUNER >				
TU101	1-693-185-11	TUNER UV-916H (KV-X2901D/X2901A/X2900B/X2901B X2903E/X2902L/X2901K)				
	1-693-184-11	TUNER UV944C (KV-X2902U)				
		< CRYSTAL >				
X2	1-579-063-21	VIBRATOR, CERAMIC				
X301	1-760-331-11	VIBRATOR, CRYSTAL				
X1001	1-567-495-11	OSCILLATOR, CRYSTAL (KV-X2901D/X2901A/X2901B X2903E/X2902U/X2902L/X2901K)				
X1101	1-579-689-21	VIBRATOR, CRYSTAL (KV-X2903E/X2902U/X2902L)				
**********						
	*A-1638-046-A	C BOARD, COMPLETE **********				
		< CAPACITOR >				
C702	1-102-824-00	CERAMIC	470PF	5%	50V	
C703	1-102-824-00	CERAMIC	470PF	5%	50V	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C712	1-102-824-00	CERAMIC	470PF	5%	50V	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	
		< CONNECTOR >				
CN702	1-695-915-11	TAB (CONTACT)				
CN703	*1-568-882-51	PIN, CONNECTOR 7P				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		< DIODE >				
D701	8-719-110-14	DIODE RD9.1ESB3				
D702	8-719-901-33	DIODE 1SS133				
D706	8-719-901-33	DIODE 1SS133				
D707	8-719-901-33	DIODE 1SS133				
D708	8-719-901-33	DIODE 1SS133				
D709	8-719-901-33	DIODE 1SS133				
D710	8-719-901-33	DIODE 1SS133				
D711	8-719-302-43	DIODE EL1Z				
D713	8-719-901-33	DIODE 1SS133				
		< JACK >				
J701	⚠ 1-526-990-21	SOCKET, CRT				
		< COIL >				
L704	1-408-609-41	INDUCTOR	33UH			
		< TRANSISTOR >				
Q702	8-729-173-38	TRANSISTOR 2SA733-K				
Q703	8-729-906-70	TRANSISTOR BF871				
Q704	8-729-200-17	TRANSISTOR 2SA1091-O				
Q705	8-729-173-38	TRANSISTOR 2SA733-K				
Q706	8-729-906-70	TRANSISTOR BF871				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-173-38	TRANSISTOR 2SA733-K				
Q709	8-729-906-70	TRANSISTOR BF871				
Q710	8-729-200-17	TRANSISTOR 2SA1091-O				
		< RESISTOR >				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-408-11	CARBON	180	5%	1/4W	
R708	1-249-399-11	CARBON	33	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R711	1-249-423-11	CARBON	3.3K	5%	1/4W	
R712	1-202-824-00	SOLID	3.3K	10%	1/2W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-249-417-11	CARBON	1K	5%	1/4W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-408-11	CARBON	180	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-399-11	CARBON	33	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-350-11	METAL OXIDE	1.2	5%	1W	F
R729	1-249-408-11	CARBON	180	5%	1/4W	
R730	1-249-399-11	CARBON	33	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R734	1-247-807-31	CARBON	100	5%	1/4W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R739	1-249-417-11	CARBON	1K	5%	1/4W	
R743	1-202-842-11	SOLID	220K	10%	1/2W	

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C D

REF.NO.		PART NO.	DESCRIPTION			REMARK
			< VARIABLE RESISTOR >			
RV701		1-230-641-11	RES, ADJ, METAL GLAZE 2.2M			
RV702		1-241-656-11	RES, ADJ, METAL FILM 110M			
**********						
		*A-1642-115-A	D BOARD, COMPLETE			
			**********			
		4-201-023-01	SPACER, INSULATING			
		4-202-373-01	SPRING, IC			
		4-812-134-00	RIVET NYLON, 3.5			
			< CAPACITOR >			
C502		1-102-824-00	CERAMIC	470PF	5%	50V
C503		1-136-165-00	FILM	0.1MF	5%	50V
C504		1-102-824-00	CERAMIC	470PF	5%	50V
C506		1-124-480-11	ELECT	470MF	20%	25V
C507		1-124-767-00	ELECT	2.2MF	20%	50V
C509		1-136-165-00	FILM	0.1MF	5%	50V
C510		1-124-911-11	ELECT	220MF	20%	50V
C511		1-136-202-11	FILM	0.33MF	5%	63V
C513		1-106-228-00	MYLAR	0.22MF	10%	100V
C514		1-136-165-00	FILM	0.1MF	5%	50V
C515		1-124-480-11	ELECT	470MF	20%	25V
C517		1-124-480-11	ELECT	470MF	20%	25V
C518		1-102-228-00	CERAMIC	470PF	10%	500V
C519		1-102-228-00	CERAMIC	470PF	10%	500V
C520		1-124-480-11	ELECT	470MF	20%	25V
C521		1-124-006-11	ELECT	10MF	20%	25V
C522		1-124-907-11	ELECT	10MF	20%	50V
C600	⚠	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C601	⚠	1-161-964-91	CERAMIC	0.0047MF		250V
C602	⚠	1-161-964-91	CERAMIC	0.0047MF		250V
C603		1-125-318-00	ELECT(BLOCK)	220MF	20%	400V
C604		1-124-122-11	ELECT	100MF	20%	50V
C605		1-124-667-11	ELECT	10MF	20%	100V
C606		1-162-318-11	CERAMIC	0.001MF	10%	500V
C607		1-124-120-11	ELECT	220MF	20%	25V
C608		0-551-803-10	CAP, 1500PF			
C611		1-102-228-00	CERAMIC	470PF	10%	500V
C612		1-104-799-11	ELECT	22MF	20%	100V
C613		1-124-347-00	ELECT	100MF	20%	160V
C614		1-126-804-11	ELECT	100MF	20%	25V
C615		1-126-376-11	ELECT	470MF	20%	25V
C616		1-128-386-11	ELECT	1000MF	20%	25V
C617		1-124-556-11	ELECT	2200MF	20%	16V
C618		1-136-165-00	FILM	0.1MF	5%	50V
C619		1-102-228-00	CERAMIC	470PF	10%	500V
C620		1-102-228-00	CERAMIC	470PF	10%	500V
C621		1-136-165-00	FILM	0.1MF	5%	50V
C622		1-124-790-11	ELECT	0.47MF	20%	100V
C623		1-124-120-11	ELECT	220MF	20%	25V
C624		1-136-165-00	FILM	0.1MF	5%	50V
C625		1-124-910-11	ELECT	47MF	20%	50V
C626		1-124-120-11	ELECT	220MF	20%	25V
C627		1-124-120-11	ELECT	220MF	20%	25V
C628		1-124-907-11	ELECT	10MF	20%	50V
C629		1-126-800-51	ELECT	2200MF	20%	35V
C630		1-126-800-51	ELECT	2200MF	20%	35V
C631		1-124-916-11	ELECT	22MF	20%	50V
C632		1-124-120-11	ELECT	220MF	20%	25V
C633	⚠	1-107-564-11	FILM	0.22MF	20%	300V
C634	⚠	1-107-564-11	FILM	0.22MF	20%	300V
C635	⚠	1-107-564-11	FILM	0.22MF	20%	300V
C636	⚠	1-164-246-51	CERAMIC	0.0022MF	20%	400V
C639		1-136-165-00	FILM	0.1MF	5%	50V
C640		1-106-220-00	MYLAR	0.1MF	10%	100V
C800		1-137-431-11	FILM	560PF	5%	50V
C801		1-136-153-00	FILM	0.01MF	5%	50V
C804		1-136-165-00	FILM	0.1MF	5%	50V
C805		1-106-395-00	MYLAR	0.15MF	10%	200V
C806		1-108-704-11	MYLAR	0.1MF	10%	200V
C807		1-136-540-11	FILM	0.82MF	5%	200V
C810		1-123-944-00	ELECT	2.2MF	20%	250V
C811		1-102-212-00	CERAMIC	820PF	10%	500V
C812		1-136-112-00	FILM	1.4MF	5%	200V
C813		1-129-722-00	FILM	0.047MF	10%	630V
C814		1-136-591-11	FILM	0.017MF	3%	1.4KV
C815		1-136-562-11	MYLAR	0.0082MF	10%	400V
C816		1-161-754-00	CERAMIC	0.001MF	10%	2KV
C817		1-161-754-00	CERAMIC	0.001MF	10%	2KV
C818		1-162-134-11	CERAMIC	470PF	10%	2KV
C819		1-136-208-11	FILM	0.068MF	10%	250V
C820		1-102-114-00	CERAMIC	470PF	10%	50V
C821		1-162-114-00	CERAMIC	0.0047MF		2KV
C822		1-123-948-00	ELECT	22MF	20%	250V
C824		1-123-024-21	ELECT	33MF		160V
C829		1-124-902-00	ELECT	0.47MF	20%	50V
C830		1-124-927-11	ELECT	4.7MF	20%	50V
C832		1-124-903-11	ELECT	1MF	20%	50V
C834		1-126-233-11	ELECT	22MF	20%	25V
C835		1-162-318-11	CERAMIC	0.001MF	10%	500V
C836		1-162-117-00	CERAMIC	100PF	10%	500V
C906		1-124-910-11	ELECT	47MF	20%	50V
C908		1-124-910-11	ELECT	47MF	20%	50V
C909		1-124-903-11	ELECT	1MF	20%	50V
C910		1-137-393-91	FILM	0.01MF	5%	100V
C1200		1-136-165-00	FILM	0.1MF	5%	50V
C1201		1-136-165-00	FILM	0.1MF	5%	50V
C1202		1-136-165-00	FILM	0.1MF	5%	50V
C1203		1-136-169-00	FILM	0.22MF	5%	50V
C1204		1-136-169-00	FILM	0.22MF	5%	50V
C1205		1-101-005-00	CERAMIC	0.022MF		50V
C1206		1-101-005-00	CERAMIC	0.022MF		50V
C1207		1-126-101-11	ELECT	100MF	20%	16V
C1208		1-124-927-11	ELECT	4.7MF	20%	50V
C1209		1-124-927-11	ELECT	4.7MF	20%	50V
C1210		1-124-925-11	ELECT	2.2MF	20%	50V
C1211		1-124-925-11	ELECT	2.2MF	20%	50V
C1212		1-137-387-11	FILM	0.001MF	5%	100V
C1213		1-137-387-11	FILM	0.001MF	5%	100V
C1214		1-126-101-11	ELECT	100MF	20%	16V
C1215		1-136-173-00	FILM	0.47MF	5%	50V
C1216		1-137-366-11	FILM	0.0022MF	5%	50V
C1217		1-137-366-11	FILM	0.0022MF	5%	50V
C1218		1-124-120-11	ELECT	220MF	20%	16V
			< CONNECTOR >			
CN600	⚠	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
CN601	⚠	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK
CN602 ⚠	*1-695-292-11	PIN, CONNECTOR (POWER)	
CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P	
CN803	1-695-915-11	TAB (CONTACT)	
CN804	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
CN807	1-568-878-51	PIN, CONNECTOR 3P	
CN901	*1-564-519-11	PLUG, CONNECTOR 4P	
CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN1200	*1-568-879-11	PIN, CONNECTOR 4P	
CN1201	*1-568-878-51	PIN, CONNECTOR 3P	
		< DIODE >	
D500	8-719-109-85	DIODE RD5.1ESB2	
D502	8-719-979-85	DIODE EGP20G	
D503	8-719-979-85	DIODE EGP20G	
D504	8-719-901-33	DIODE 1SS133	
D505	8-719-982-03	DIODE MTZJ-3.6A	
D506	8-719-901-33	DIODE 1SS133	
D507	8-719-109-85	DIODE RD5.1ESB2	
D600	8-719-510-53	DIODE D4SB60L	
D601	8-719-046-77	DIODE EM1-V1	
D603	8-719-109-97	DIODE RD6.8ESB2	
D604	8-719-046-75	DIODE EU-1-V1	
D605	8-719-312-61	DIODE EU-1Z	
D606	8-719-312-61	DIODE EU-1Z	
D607	8-719-046-78	DIODE EG-1Z-V1	
D608	8-719-046-75	DIODE EU-1-V1	
D609	8-719-301-64	DIODE RU4DS	
D610	8-719-046-74	DIODE AU-01Z-V1	
D611	8-719-302-43	DIODE EL1Z	
D612	8-719-046-76	DIODE RU-3YX-V1	
D613	8-719-302-43	DIODE EL1Z	
D614	8-719-302-43	DIODE EL1Z	
D615	8-719-046-75	DIODE EU-1-V1	
D616	8-719-110-03	DIODE RD7.5ESB2	
D617	8-719-901-33	DIODE 1SS133	
D618	8-719-901-33	DIODE 1SS133	
D619	8-719-901-33	DIODE 1SS133	
D620	8-719-901-33	DIODE 1SS133	
D622	8-719-921-69	DIODE MTZJ-9.1	
D625	8-719-901-33	DIODE 1SS133	
D626	8-719-046-74	DIODE AU-01Z-V1	
D800	8-719-901-33	DIODE 1SS133	
D801	8-719-901-33	DIODE 1SS133	
D802	8-719-901-33	DIODE 1SS133	
D803	8-719-908-03	DIODE GP08D	
D807	8-719-302-43	DIODE EL1Z	
D808	8-719-908-03	DIODE GP08D	
D809	8-719-018-82	DIODE RGP02-20EL-6394	
D810	8-719-302-43	DIODE EL1Z	
D812	8-719-945-80	DIODE ERC06-15S	
D813	8-719-945-80	DIODE ERC06-15S	
D814	8-719-900-26	DIODE ERD29-08J	
D815	8-719-908-03	DIODE GP08D	
D817	8-719-109-89	DIODE RD5.6ESB2	
D902	8-719-921-69	DIODE MTZJ-9.1	
D903	8-719-921-69	DIODE MTZJ-9.1	
D904	8-719-921-69	DIODE MTZJ-9.1	
D905	8-719-921-69	DIODE MTZJ-9.1	
D906	8-719-921-69	DIODE MTZJ-9.1	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< FERRITE BEAD >	
FB600	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
		< IC >	
IC500	8-759-192-71	IC STV9379	
IC600	8-759-183-88	IC STR-S6708	
IC601 ⚠	8-749-924-93	IC TLP621GR	
IC602	8-749-923-26	IC SE135N-LF12	
IC603	8-759-013-06	IC MC7805CT	
IC604	8-759-250-63	IC TL750L05CLP	
IC605	8-759-701-79	IC NJM7812FA	
IC606	8-759-267-25	IC LM2940T-90	
IC800	8-759-103-93	IC UPC393C	
IC1200	8-759-250-68	IC TDA7264	
IC1201	8-759-502-21	IC TDA2822M	
		< COIL >	
L502	1-412-519-11	INDUCTOR 3.3UH	
L503	1-412-519-11	INDUCTOR 3.3UH	
L609	1-412-533-21	INDUCTOR 47UH	
L611	1-412-533-21	INDUCTOR 47UH	
L612	1-414-415-11	INDUCTOR 0UH	
L613	1-414-415-11	INDUCTOR 0UH	
L800	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L801	1-459-111-00	COIL, DRAM CORE (CDI)	
L802	1-459-104-00	COIL, WITH CORE	
L803	1-420-872-00	COIL, AIR CORE	
L804	1-459-907-11	COIL, HORIZONTAL LINEARITY	
L805	1-412-552-31	INDUCTOR 2.2MMH	
L806	1-412-519-11	INDUCTOR 3.3UH	
L809	1-412-533-21	INDUCTOR 47UH	
		< IC LINK >	
PS600 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS601 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS602 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS603 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS801 ⚠	1-532-605-21	LINK, IC 0.4A (ICP-F10)	
		< TRANSISTOR >	
Q501	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
Q502	8-729-173-38	TRANSISTOR 2SA733-K	
Q503	8-729-900-89	TRANSISTOR DTC144ES	
Q601	8-729-025-05	TRANSISTOR 2SC3852A-O	
Q602	8-729-320-28	TRANSISTOR 2SA1667	
Q603	8-729-024-35	TRANSISTOR 2SC2808STP-R	
Q604	8-729-024-35	TRANSISTOR 2SC2808STP-R	
Q605	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
Q606	8-729-900-65	TRANSISTOR DTA144ES	
Q607	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
Q800	8-729-119-78	TRANSISTOR JC501-Q-AMMO	
Q801	8-729-017-06	TRANSISTOR 2SC4793	
Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
Q803	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q805	8-729-900-89	TRANSISTOR DTC144ES	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

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REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1200	8-729-119-78	TRANSISTOR JC501-Q-AMMO				
		< RESISTOR >				
R500	1-215-457-00	METAL	33K	1%	1/4W	
R502	1-249-421-11	CARBON	2.2K	5%	1/4W	
R503	1-249-429-11	CARBON	10K	5%	1/4W	
R504	1-215-459-00	METAL	39K	1%	1/4W	
R505	1-249-382-11	CARBON	1.2	5%	1/4W	F
R506	1-215-447-00	METAL	12K	1%	1/4W	
R507	1-215-887-00	METAL OXIDE	150	5%	2W	F
R508	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R509	1-249-443-11	CARBON	0.47	5%	1/4W	F
R510	1-249-443-11	CARBON	0.47	5%	1/4W	F
R517	1-215-427-00	METAL	1.8K	1%	1/4W	
R518	1-215-427-00	METAL	1.8K	1%	1/4W	
R520	1-215-457-00	METAL	33K	1%	1/4W	
R521	1-215-461-00	METAL	47K	1%	1/4W	
R522	1-249-433-11	CARBON	22K	5%	1/4W	
R523	1-249-433-11	CARBON	22K	5%	1/4W	
R524	1-249-425-11	CARBON	4.7K	5%	1/4W	
R525	1-249-425-11	CARBON	4.7K	5%	1/4W	
R526	1-249-421-11	CARBON	2.2K	5%	1/4W	
R527	1-215-430-00	METAL	2.4K	1%	1/4W	
R600	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R601	1-249-417-11	CARBON	1K	5%	1/4W	
R603	1-249-429-11	CARBON	10K	5%	1/4W	
R604	1-249-420-11	CARBON	1.8K	5%	1/4W	
R605	1-216-362-11	METAL OXIDE	0.27	5%	2W	F
R607	1-216-421-11	METAL OXIDE	12	5%	1W	F
R608	1-216-365-00	METAL OXIDE	0.47	5%	2W	F
R610	1-249-417-11	CARBON	1K	5%	1/4W	
R611	1-215-859-00	METAL OXIDE	22	5%	1W	F
R612	1-249-428-11	CARBON	8.2K	5%	1/4W	
R613	1-249-417-11	CARBON	1K	5%	1/4W	
R614	1-249-429-11	CARBON	10K	5%	1/4W	
R615	1-249-435-11	CARBON	33K	5%	1/4W	
R616	1-215-477-00	METAL	220K	1%	1/4W	
R617	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R618	1-249-429-11	CARBON	10K	5%	1/4W	
R619	1-216-425-21	METAL OXIDE	56	5%	1W	F
R620	1-247-895-00	CARBON	470K	5%	1/4W	
R621	1-216-425-21	METAL OXIDE	56	5%	1W	F
R622	1-249-437-11	CARBON	47K	5%	1/4W	
R623	1-249-429-11	CARBON	10K	5%	1/4W	
R624	1-249-405-11	CARBON	100	5%	1/4W	F
R625	1-249-434-11	CARBON	27K	5%	1/4W	
R626	1-249-430-11	CARBON	12K	5%	1/4W	
R628	1-249-415-11	CARBON	680	5%	1/4W	F
R629 ⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R630 ⚠	1-218-265-11	METAL GLAZE	8.2M	5%	1W	
R631 ⚠	1-205-949-11	WIREWOUND	1.8	5%	10W	
R634	1-249-397-11	CARBON	22	5%	1/4W	F
R635	1-249-437-11	CARBON	47K	5%	1/4W	
R636	1-249-417-11	CARBON	1K	5%	1/4W	
R637	1-249-409-11	CARBON	220	5%	1/4W	
R638	1-249-433-11	CARBON	22K	5%	1/4W	
R639	1-249-429-11	CARBON	10K	5%	1/4W	
R640	1-216-381-11	METAL OXIDE	0.22	5%	3W	F
R641	1-216-381-11	METAL OXIDE	0.22	5%	3W	F
R642 ⚠	1-205-949-11	WIREWOUND	1.8	5%	10W	
R643	1-249-423-11	CARBON	3.3K	5%	1/4W	
R644	1-260-087-11	CARBON	100	5%	1/2W	
R645	1-249-422-11	CARBON	2.7K	5%	1/4W	
R646	1-249-377-11	CARBON	0.47	5%	1/4W	F
R647	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R648	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R800	1-249-421-11	CARBON	2.2K	5%	1/4W	
R801	1-249-429-11	CARBON	10K	5%	1/4W	
R802	1-249-431-11	CARBON	15K	5%	1/4W	
R803	1-249-423-11	CARBON	3.3K	5%	1/4W	
R804	1-249-430-11	CARBON	12K	5%	1/4W	
R805	1-249-425-11	CARBON	4.7K	5%	1/4W	
R812	1-249-421-11	CARBON	2.2K	5%	1/4W	
R813	1-215-867-00	METAL OXIDE	470	5%	1W	F
R814	1-249-411-11	CARBON	330	5%	1/4W	
R816	1-216-481-21	METAL OXIDE	1.2K	5%	3W	F
R817	1-216-481-21	METAL OXIDE	1.2K	5%	3W	F
R818	1-215-882-00	METAL OXIDE	22	5%	2W	F
R819	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-215-884-11	METAL OXIDE	47	5%	2W	F
R822	1-215-868-00	METAL OXIDE	680	5%	1W	F
R824	1-249-420-11	CARBON	1.8K	5%	1/4W	
R826	1-247-752-11	CARBON	1K	5%	1/2W	
R827	1-249-425-11	CARBON	4.7K	5%	1/4W	
R828	1-249-427-11	CARBON	6.8K	5%	1/4W	
R829	1-249-493-11	CARBON	56K	5%	1/2W	
R830	1-217-778-11	FUSIBLE	1K	5%	1W	F
R833	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R836	1-249-439-11	CARBON	68K	5%	1/4W	
R837	1-249-431-11	CARBON	15K	5%	1/4W	
R840	1-247-807-31	CARBON	100	5%	1/4W	
R841	1-249-418-11	CARBON	1.2K	5%	1/4W	
R842	1-249-441-11	CARBON	100K	5%	1/4W	
R843	1-247-893-11	CARBON	390K	5%	1/4W	
R846	1-249-441-11	CARBON	100K	5%	1/4W	
R847	1-247-891-00	CARBON	330K	5%	1/4W	
R848	1-247-887-00	CARBON	220K	5%	1/4W	
R849	1-249-429-11	CARBON	10K	5%	1/4W	
R850	1-249-425-11	CARBON	4.7K	5%	1/4W	
R851	1-247-764-11	CARBON	10K	5%	1/2W	F
R852	1-249-432-11	CARBON	18K	5%	1/4W	
R901	1-202-539-00	SOLID	39	10%	1/2W	
R902	1-202-539-00	SOLID	39	10%	1/2W	
R907	1-247-804-11	CARBON	75	5%	1/4W	
R916	1-249-397-11	CARBON	22	5%	1/4W	
R917	1-249-397-11	CARBON	22	5%	1/4W	
R1200	1-249-429-11	CARBON	10K	5%	1/4W	
R1201	1-249-434-11	CARBON	27K	5%	1/4W	
R1202	1-249-393-11	CARBON	10	5%	1/4W	F
R1203	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1204	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1205	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1206	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1207	1-249-417-11	CARBON	1K	5%	1/4W	
R1208	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R1209	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R1210	1-249-417-11	CARBON	1K	5%	1/4W	
R1211	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1212	1-249-424-11	CARBON	3.9K	5%	1/4W	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

D VM H1

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1213	1-249-425-11	CARBON 4.7K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV301	1-238-552-11	RES, ADJ, CARBON 470K	
		< RELAY >	
RY600 ⚠	1-515-720-31	RELAY	
		< SPARK GAP >	
SG801	1-519-422-11	GAP, SPARK	
		< TRANSFORMER >	
LF600 ⚠	1-421-776-11	LFT	
LF601 ⚠	1-421-776-11	LFT	
T601 ⚠	1-426-805-11	TRANSFORMER, SRT	
T800	1-424-545-11	TRANSFORMER, FERRITE (PMT)	
T803 ⚠	1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)	
T804	1-437-090-00	HDT	
		< THERMISTOR >	
THP600 ⚠	1-809-827-11	THERMISTOR, POSITIVE	
**********			
	*A-1644-028-A	VM BOARD, COMPLETE	
		**********	
	*4-368-683-21	SPRING, TRANSISTOR	
		< CAPACITOR >	
C1701	1-124-119-00	ELECT 330MF 20% 16V	
C1702	1-101-880-00	CERAMIC 47PF 5% 50V	
C1703	1-102-115-00	CERAMIC 560PF 10% 50V	
C1704	1-161-830-00	CERAMIC 0.0047MF 500V	
C1705	1-124-120-11	ELECT 220MF 20% 16V	
C1706	1-123-935-00	ELECT 33MF 20% 160V	
C1707	1-124-907-11	ELECT 10MF 20% 50V	
C1708	1-101-006-00	CERAMIC 0.047MF 50V	
C1709	1-108-704-11	MYLAR 0.1MF 10% 200V	
C1710	1-136-207-11	FILM 0.047MF 10% 250V	
C1711	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C1712	1-124-799-11	ELECT 2.2MF 20% 160V	
C1713	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C1714	1-136-207-11	FILM 0.047MF 10% 250V	
C1716	1-124-907-11	ELECT 10MF 20% 50V	
C1718	1-124-120-11	ELECT 220MF 20% 16V	
C1719	1-124-927-11	ELECT 4.7MF 20% 50V	
		< CONNECTOR >	
CN1819	*1-568-882-51	PIN, CONNECTOR 7P	
		< DIODE >	
D1701	8-719-901-33	DIODE 1SS133	
D1702	8-719-901-33	DIODE 1SS133	
D1703	8-719-901-33	DIODE 1SS133	
D1704	8-719-982-37	DIODE MTZJ-39C	
D1705	8-719-982-37	DIODE MTZJ-39C	
D1706	8-719-901-33	DIODE 1SS133	
D1707	8-719-901-33	DIODE 1SS133	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< COIL >	
L1702	1-408-418-00	INDUCTOR 56UH	
		< TRANSISTOR >	
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1702	8-729-173-38	TRANSISTOR 2SA733-K	
Q1703	8-729-017-05	TRANSISTOR 2SA1837	
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1705	8-729-017-06	TRANSISTOR 2SC4793	
Q1706	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1707	8-729-140-96	TRANSISTOR 2SD774-34	
Q1708	8-729-901-59	TRANSISTOR BF199	
Q1709	8-729-255-12	TRANSISTOR 2SC2551-O	
		< RESISTOR >	
R1701	1-247-807-31	CARBON 100 5% 1/4W	
R1702	1-249-420-11	CARBON 1.8K 5% 1/4W	
R1703	1-247-807-31	CARBON 100 5% 1/4W	
R1704	1-249-420-11	CARBON 1.8K 5% 1/4W	
R1705	1-247-736-11	CARBON 56 5% 1/2W	F
R1706	1-249-414-11	CARBON 560 5% 1/4W	F
R1707	1-249-412-11	CARBON 390 5% 1/4W	
R1709	1-249-416-11	CARBON 820 5% 1/4W	
R1710	1-249-385-11	CARBON 2.2 5% 1/4W	F
R1711	1-249-432-11	CARBON 18K 5% 1/4W	
R1712	1-249-435-11	CARBON 33K 5% 1/4W	
R1713	1-249-438-11	CARBON 56K 5% 1/4W	
R1714	1-249-429-11	CARBON 10K 5% 1/4W	
R1715	1-216-476-11	METAL OXIDE 180 5% 3W	F
R1716	1-249-417-11	CARBON 1K 5% 1/4W	F
R1717	1-249-432-11	CARBON 18K 5% 1/4W	
R1718	1-249-410-11	CARBON 270 5% 1/4W	
R1719	1-249-419-11	CARBON 1.5K 5% 1/4W	
R1720	1-249-441-11	CARBON 100K 5% 1/4W	
R1721	1-249-414-11	CARBON 560 5% 1/4W	
R1722	1-249-385-11	CARBON 2.2 5% 1/4W	F
R1723	1-249-429-11	CARBON 10K 5% 1/4W	
R1724	1-249-436-11	CARBON 39K 5% 1/4W	
R1725	1-249-417-11	CARBON 1K 5% 1/4W	
R1726	1-249-411-11	CARBON 330 5% 1/4W	
R1727	1-249-402-11	CARBON 56 5% 1/4W	F
R1729	1-216-451-11	METAL OXIDE 120 5% 2W	F
R1731	1-249-420-11	CARBON 1.8K 5% 1/4W	
R1732	1-249-426-11	CARBON 5.6K 5% 1/4W	
R1734	1-249-419-11	CARBON 1.5K 5% 1/4W	
**********			
	*A-1646-057-A	H1 BOARD, COMPLETE	
		**********	
		< CAPACITOR >	
C900	1-101-810-00	CERAMIC 100PF 5% 50V	
C901	1-101-810-00	CERAMIC 100PF 5% 50V	
C902	1-136-205-11	FILM 0.022MF 10% 40V	
C903	1-136-205-11	FILM 0.022MF 10% 40V	
C907	1-124-903-11	ELECT 1MF 20% 50V	
		< CONNECTOR >	
CN900	1-568-678-11	TERMINAL BLOCK, S 3P	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

H1 H2 H3

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< JACK >	
J900	1-562-837-11	JACK	
		< COIL >	
L900	1-408-409-00	INDUCTOR 10UH	
L901	1-408-409-00	INDUCTOR 10UH	
		< RESISTOR >	
R905	1-247-804-11	CARBON 75 5% 1/4W	
R906	1-247-804-11	CARBON 75 5% 1/4W	
R909	1-249-437-11	CARBON 47K 5% 1/4W	
R910	1-249-437-11	CARBON 47K 5% 1/4W	
R915	1-249-397-11	CARBON 22 5% 1/4W	
**********			
*1-652-269-11	H2 BOARD		
	********		
		< CAPACITOR >	
C904	1-124-910-11	ELECT 47MF 20% 50V	
C905	1-124-907-11	ELECT 10MF 20% 50V	
		< CONNECTOR >	
CN907	1-564-509-11	PLUG, CONNECTOR 6P	
		< DIODE >	
D901	8-719-948-60	DIODE SLR-54VR3	
	4-202-707-01	HOLDER, LED (D901)	
		< IC >	
IC900	8-741-790-51	IC SBX1790-51	
		< RESISTOR >	
R900	1-249-409-11	CARBON 220 5% 1/4W	
R908	1-249-401-11	CARBON 47 5% 1/4W	
**********			
*1-652-270-11	H3 BOARD		
	********		
		< RESISTOR >	
R911	1-249-423-11	CARBON 3.3K 5% 1/4W	
R912	1-249-429-11	CARBON 10K 5% 1/4W	
R913	1-249-423-11	CARBON 3.3K 5% 1/4W	
R914	1-249-429-11	CARBON 10K 5% 1/4W	
		< SWITCH >	
S900	1-692-979-11	SWITCH, TACTILE	
S901	1-692-979-11	SWITCH, TACTILE	
S902	1-692-979-11	SWITCH, TACTILE	
**********			

REF.NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
⚠	1-402-747-21	COIL, DEGAUSSING	
⚠	8-451-313-61	DEFLECTION YOLK Y29FXA	
	1-692-979-11	SPEAKER 7.5 x 13CM	
⚠	1-751-680-11	CORD POWER (WITH NOISE FILTER)	(KV-X2901A/X2901D)
⚠	1-590-460-11	CORD POWER (WITH CONNECTOR)	(KV-X2900B/X2901B/X2903E/X2901K)
⚠	1-590-762-11	CORD POWER (WITH PLUG)	(KV-X2902L/X2902U)
V901 ⚠	8-733-831-05	PICTURE TUBE SD-191 (A68JYL61X)	
**********			
		ACCESSORIES AND PACKING MATERIALS	
		**********	
	4-202-699-11	MANUAL INSTRUCTION (GERMAN/ENGLISH/DUTCH/GREEK)	
	4-202-699-41	MANUAL INSTRUCTION (ITALIAN)	
	4-202-699-51	MANUAL INSTRUCTION (FRENCH	
	4-202-699-61	MANUAL INSTRUCTION (ENGLISH)	
	4-202-699-71	MANUAL INSTRUCTION (SPANISH)	
	4-202-699-81	MANUAL INSTRUCTION (GERMAN/DANISH/FRENCH/NORWEGIAN) (DUTCH/PORTUGUESE/SWEDISH/FINNISH)	
	4-202-699-91	MANUAL INSTRUCTION (HUNGARIAN/CZECH/POLISH/RUSSIAN) (BULGARIAN)	
	*1-692-979-11	BAG, PROTECTION	
	*1-692-979-11	CUSHION (UPPER) (ASSY)	
	*1-751-680-11	CUSHION (LOWER) (ASSY)	
	*1-590-762-11	INDIVIDUAL CARTON	
		REMOTE COMMANDER	
		**********	
	1-467-706-11	COMMANDER (RM833)	
**********			

7296

SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2901D	RM-833	AEP	SCC-G77B-A	KV-X2903E	RM-833	Spanish	SCC-G82B-A
KV-X2901A	RM-833	Italian	SCC-G81B-A	KV-X2902L	RM-833	IRISH	SCC-G83B-A
KV-X2900B	RM-833	French	SCC-G85B-A	KV-X2902U	RM-833	UK	SCC-G87B-A
KV-X2901B	RM-833	French	SCC-G84B-A	KV-X2901K	RM-833	OIRT	SCC-G86A-A

CORRECTION - 1

SUBJECT: CORRECTED SPECIFICATIONS

File this correction with the service manual

(See page 2)

Incorrect

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Irish	I	NICAM Stereo	VHF A-C, D-J, VHF 21-69 CABLE CHANNELS S1-S20 HYPERBAND S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Correct

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, L, I	KV-X2501B GERMAN Stereo KV-X2500B GERMAN/NICAM Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H,	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
Irish	I	NICAM Stereo	VHF A-C, D-J, UHF 21-69 CABLE CHANNELS S1-S20 (C) HYPERBAND S21-S41	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MICROFILM

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SONY

SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-X2901D	RM-833	AEP	SCC-G77B-A	KV-X2903E	RM-833	Spanish	SCC-G82B-A
KV-X2901A	RM-833	Italian	SCC-G81B-A	KV-X2902L	RM-833	IRISH	SCC-G83B-A
KV-X2900B	RM-833	French	SCC-G85B-A	KV-X2902U	RM-833	UK	SCC-G87B-A
KV-X2901B	RM-833	French	SCC-G84B-A	KV-X2901K	RM-833	OIRT	SCC-G86A-A

CORRECTION - 2

SUBJECT: CORRECTED PART NUMBERS

File this correction with the service manual

INTRODUCTION : 1. ALL MODELS.
2. ALL MODELS.
3. KV-X2901D/X2901A/X2900B/X2901B/X2903E/X290IK only.

☛ :Indicates corrected portion.

SECTION 6 EXPLODED VIEWS

6-2.PICTURE TUBE (See page 58)

Item 1

INCORRECT				CORRECT			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
53	4-386-710-11	CATCHER, PUSH		53	4-392-036-11	CATCHER, PUSH	

SECTION 6 EXPLODED VIEWS, SECTION 7 ELECTRICAL PARTS LIST

6-1 CHASSIS (See page 57), F1 BOARD (See page 59), H2/H3 boards (See page 71)

Item 2

INCORRECT				CORRECT			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-652-270-11	H3 BOARD ********			*A-1646-059-A	H3 BOARD, COMPLETE **********	
	*1-652-269-11	H2 BOARD ********			*A-1646-058-A	H2 BOARD, COMPLETE **********	
	*1-652-271-11	F1 BOARD ********			*A-1624-029-A	F1 BOARD, COMPLETE **********	

SECTION 7 ELECTRICAL PARTS LIST

A BOARD (See page 61)

Item 3

INCORRECT				CORRECT			
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
CF101	0-550-400-00	EFCV 4045 A4		CF101	1-760-154-21	EFCV 4045 A4	
CF103	0-550-808-10	SFE 5.5MC2		CF103	1-760-106-21	SFE 5.5MC2	
CF106	0-550-809-10	SFE 5.75MC2		CF106	1-760-107-21	SFE 5.75MC2	

MICROFILM

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